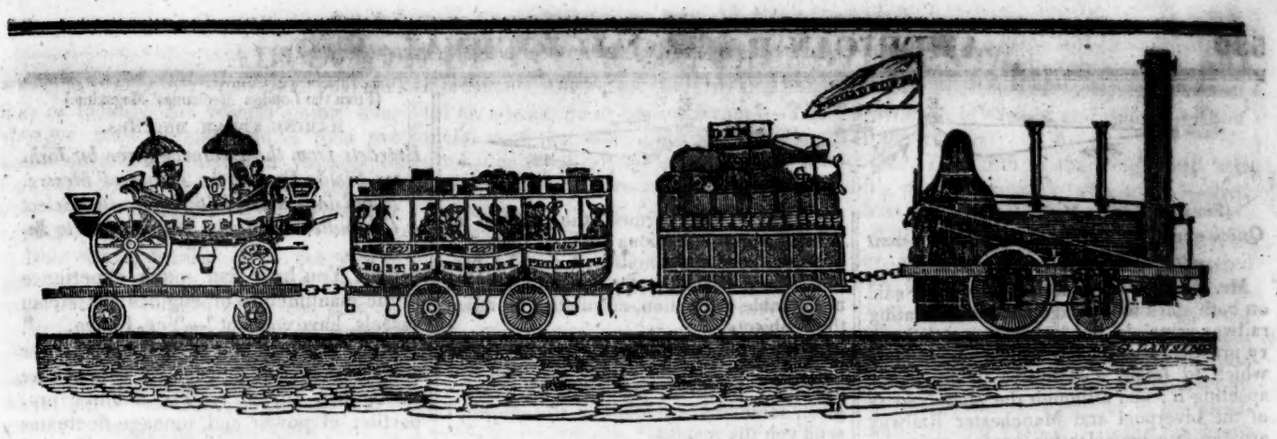

AMERICAN RAILROAD JOURNAL,
AND ADVOCATE OF INTERNAL IMPROVEMENTS.

PUBLISHED WEEKLY, AT No. 35 WALL STREET, NEW-YORK, AT THREE DOLLARS PER ANNUM, PAYABLE IN ADVANCE.

D. K. MINOR, Editor.] SATURDAY, AUGUST 29, 1835. [VOLUME IV.—No. 34.

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AMERICAN RAILROAD JOURNAL.

NEW-YORK, AUGUST 29, 1835.

Bridge Building.—We have received from a friend, a communication, with a drawing, of Lieut. G. W. Long's plan of bridge building, which we shall hereafter give to our readers.

Utica and Schenectady Railroad.—This work is progressing rapidly. The grading is completed on nearly its entire line. Its termination is fixed at the lower end of Genesee street, near the Mohawk bridge, in Utica; and it will give life and activity to that part of the city, which has not improved, since the completion of the Erie Canal, as rapidly as other parts of the city.

Enlargement of the Erie Canal.—We understand that the "*Canal Board*" has decided to enlarge the Erie Canal to 60 *feet wide and* 6 *feet deep*. We regret exceedingly this decision—as we believe that the best interests of the State require that it should be at least enlarged *eighty feet* wide and *eight* feet deep. If the business has increased in *ten* years, *or* if, even in fifteen years, it shall so increase as that the present canal will not be capable of passing it—what may we not expect, when we know what has occurred, within the next *forty* years? Look at the almost boundless *West*—into which the *industry* and youth of the older States are setting in an overwhelming current—and then estimate the amount of business which must naturally find an outlet through *this* State. If any thing has been learned by experience, it is that the present canal is altogether too small, and therefore it must be enlarged. If it must be enlarged, why not do it in such a manner as to render a second enlargement unnecessary? This would seem to be a reasonable question, and it should be properly and correctly answered; and now is the time, before the work is commenced, to answer it. Would it not therefore be proper for the citizens of New-York, who are so deeply interested in it, to express an opinion upon it? To us it appears a very proper subject of consultation, and we would therefore recommend it to their consideration.

Olean Canal. — This work, it would seem, is not duly appreciated by the business men, and owners of real estate, in this city. It is highly important that measures should be taken at an early period to disseminate such information as will place the merits of the Olean and Rochester Canal fairly before the people of the State, and respectfully before the citizens of New-York.

The route for this canal has been twice surveyed, and found beyond question practicable, and well supplied with water. It is well known that its route lays, a part of the way at least, through a thickly populated and well cultivated part of the country—and it is also well known that it will, when completed, connect two of the most important water communications, viz. the Ohio and Mississippi Rivers on one side, and the Erie Canal and Hudson River on the other—and that it passes through a region of country in which is found probably the best pine lumber brought to this or any other; and it is also believed, from the very strong indications that have been discovered, to possess immense quantities of coal. Thus it will be seen that, in addition to the business which must necessarily pass through this canal, from the two great thoroughfares above alluded to, the country bordering upon it has resources of its own which will insure to it at least a fair share of business—and that these considerations taken together, with the very great increase of business which will naturally result from the construction of the New-York and Erie Railroad, which is now placed beyond a doubt, must satisfy even those who have before *doubted*, that this work will yield to the State a handsome profit, and at the same time greatly enhance the value of property on its line.

If these views are correct, it is a matter of great importance that early measures should be taken to arouse the people interested in its construction. What then is the proper course to pursue? Call a CONVENTION, we say, to be held at *Rochester*, some time in October, for the purpose of promoting the work. Let good men be selected from all those counties interested in the work, and especially from this city—who can give life and energy to the measure. From *such* a course good *must result*—or at least *harm* cannot.

Laborers Wanted.—We are informed that laborers are wanted on the line of the Chenango Canal. Twelve or fifteen hundred men, we were recently informed, could get employment and good wages by applying immediately.

Quebec, 14th August.—Capt. Yule of the Royal Engineers returned from his reconnaissance of the route for the proposed Railroad to Maine, by the Chaudière and River du Loup. His report is more favorable than he anticipated himself. Being called to Montreal on a periodical service of a few days, he goes up to-morrow, having left his baggage in the country and not completed the Chaudière and Megantic reconnaissance. He met the Committee this afternoon.

There are only three places where slight obstacles occur, easily to be surmounted, viz,; Pointe Lévi, St. Mary's and the junction of the Rivière du Loup, a tributary of the Chaudière. Captain Yule intends examining the landing at the Pointe Lévi, to-morrow, and return from Montreal to proceed with the Chaudière reconnaissance, up which it was found impracticable to move from the lowness of the water.

[From the London Mechanics' Magazine.]

Quick and Cheap Mode of Railway Transit without Locomotive Engines.

Mr. Editor,—A great deal has been said on both sides for and against the undulating railway principle, but hitherto no satisfactory practical results have been obtained on which to found a definitive judgment respecting it; and although the shareholders of the Liverpool and Manchester Railway are deriving considerable profits, owing to the immense traffic between the two towns, still there are doubts if many other roads will pay at all: the expense of locomotive engines being so great, wherever there are considerable inclines to be overcome, and the first expense of constructing the railway so enormous, from the endeavors made by tunnelling and embanking to reduce that expense. I am, therefore, induced to send you a new plan of an undulating railway, by which locomotive engines (except on very rare occasions, indeed,) will be dispensed with; the trains will travel by the force of their own gravity from station to station, as described in the above diagram.

E E are stationary steam-engines, and O O O O inclined planes by which the stationary engines bring the trains up to a level, when the trains, going and returning, take the roads the arrows point to. I have no doubt but in many situations falls may be obtained each way for miles together. Deep cutting and tunnelling would be thus, in a great measure, dispensed with; and if tunnels in some situations were absolutely necessary, by giving them the required falls for the trains to go through them, by gravity alone, travelling through them would not be disagreeable, as no engine would go with the trains.

I am, Sir, your obedient servant,

THOMAS DEAKIN.

Blaenavon Iron-Works, June 5, 1835.

[From the London Mechanics' Magazine.]

Mr. Woodhouse's Angular Railway Bars.

Fig. 1.

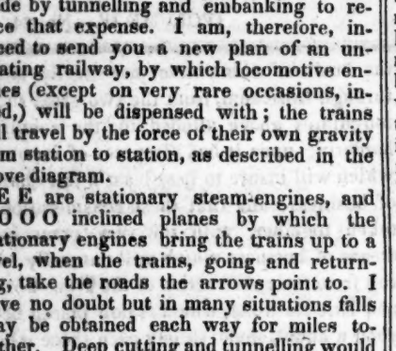
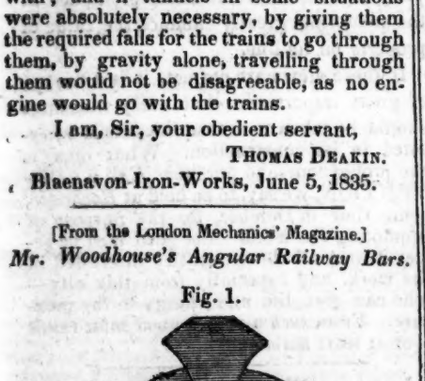


Fig. 2.



Sir,—As the form of rails best suited for affording safety, economy, durability, &c. has occupied the attention of many scientific persons, and formed the subject of several communications in your pages, I hope, without presumption, I may be permitted to propose the annexed as a plan, in my humble estimation, calculated to effect these objects.

Some few months since, I proposed the use of an angular rail; my plan was not then matured, but as I have since given some little attention to the subject, I send you the results.

The purpose of giving an angular shape to the rail is, that the engine wheel (also having an angular grooved rim to correspond) may have a greater hold upon the rail, thereby giving greater efficiency to the power of the machine, preventing an irregular action, which must be produced when the wheel slips on the rail (a circumstance much alluded to at the opening of the Selby Railway,) and thereby much strain to the machinery. The top surface, one inch broad, is intended for the train-wheels, and where friction would be a defect, it is thereby avoided. The form of the rail is intended to admit of being reversed at any future time when the upper surface is worn. The chair is not intended to be fixed, but the central part, which projects downwards, is to let into the stone sleeper, and be bedded in with cement or not, as found best. The rail is not fixed to all the chairs, but only to the centre one; which proposition I made with another plan of Rail and Chair sent to the *London and Birmingham* Railway Directors. The size of the present rail is as follows: Depth, 4¼ inches; extreme width, 2¼ inches; surface, 1 inch; angles, from 15 to 25°, as the friction is required; the calculated weight is rather more than 51 lbs., but upon shrinking, it would probably not be more than 50 lbs. to the lineal yard.

It has been objected to turning the rail when one side is partially worn down, that in proportion as it is so worn, its strength must be diminished. But as long as the internal structure of the rail is not so permanently injured as to prevent its return after deflexion to its original horizontal form, it seems to me that it must be nearly, if not to the full, as efficient as ever.

As respects the supporting of the rails, I also proposed that instead of having the rail resting solely upon the chair, the chair should be so planned that the rail should also rest upon the surface of the stone, whereby it would be strengthened, and the stone, by receiving a steady vertical pressure, would be rendered less liable to the casualties so frequently complained of.

I also proposed that the stone-block or sleeper should be placed in an angular direction with the length of rail or line of road, whereby a greater surface of stone would be placed in the directions most required, viz. lengthways and sideways. By this plan an 18 inch stone exposes a surface of 2 feet and more to the pressure.

Fig. 1 is a section of the rail as it rests in the chair, which, when the lower portion of the chair is let into the stone, will rest upon the stone also; the two small sections are for the purpose of fixing the centre of each rail to its chair. Fig. 2 is a vertical view, showing the angular position of the stone upon a smaller scale.

I am, Sir, yours respectfully,

P. WOODHOUSE.

Kilburn, May 27, 1835.

[From the London Mechanics' Magazine.]

MARINE STEAM ENGINES.

Extracts from the Evidence given by Joshua Field, Esq. of the House of Messrs. Maudslays and Field, before the Select Committee on Steam Navigation to India.

693. You have had much experience in the manufacture of engines for steam vessels, have you not?—Yes, I have.

694. What do you consider the proper measurement and power of a steamer for a long sea voyage?—The relative proportion of power and tonnage fluctuates between two tons per horse power, and four tons per horse power, depending upon the purposes for which the vessel is intended, as well as the length of the voyage.

695. What do you say as to the measurement?—By measurement I understand tonnage. I have prepared a table which shows at one view the probable speed to be obtained by the application of engines of four different powers in vessels of the same tonnage, also the length of time for which they would be able to carry coal with each power on board. This table, if the committee desire it, I will put in.

AN APPROXIMATE TABLE, showing at one view the Tonnage of Steam Vessels, with the Power usually applied to such Vessels, the number of Days' (of 24 hours) Coals they will carry, and the probable Speed per hour they will go with smaller powers and greater quantity of coal.

Tonnage.	10 miles.		9 miles.		8 miles.		7 miles.	
	Power.	Coal.	Power.	Coal.	Power.	Coal.	Power.	Coal.
252	100	5	80	6¼	60	8¼	40	12
290	100	6	80	7½	60	10	40	15
332	120	7	100	8½	80	10½	60	14
375	120	8	100	9½	80	12	60	16
425	140	9	120	10½	100	12½	80	15½
480	140	10	120	11½	100	14	80	16½
534	160	11	140	12½	120	14½	100	17½
597	160	12	140	13½	120	16	100	19
665	200	13	160	16	140	18½	120	21½
736	200	14	160	18½	140	20	120	23½
810	220	15	200	16½	160	20½	140	24
892	220	16	200	17½	160	22	140	26
980	240	17	220	18½	200	20½	160	25½
1073	240	18	220	19½	200	21½	160	27

696. Will you explain to the committee the object of this calculation; is it a comparison of tonnage with the consumption of coals and days, and the rates of going?—It is to show about how many days' fuel steam vessels will carry with larger and with smaller engines on board, as well as the average speed to be expected from each. Such a table can only be an approximation.

697. Will you first state what you consider the proper measurement and power of a steamer to go a long sea voyage?—I should recommend a vessel of from 7 to 800 tons, having an engine of 180 or 200 horse power.

698. How long would such a vessel run, and at what rate would she go?—She would carry coal for 14 or 15 days, and have a speed, in still water, of 9 or 10 miles per hour, and would realize in all weathers, at sea, an average of 8 miles while under-weigh.

699. What is the greatest proportion in tonnage and power for a steamer going a long voyage?—The greatest propor-

tion of tonnage for vessels going long voyages may be stated at 4 tons per horse power; for short sea voyages, 3 tons per horse power; and for river vessels, as Margate or Gravesend, 2 tons per horse power.

700. What results does the power give to a vessel of the same tonnage with different powers as to the rate of going?—Great power in small vessels gives great speed, but they carry a small quantity of coal, and are soon exhausted, while larger vessels being able to carry a greater quantity of coals, work longer, and perform greater distances.

701. Then you draw this inference—the longer the voyage the less the speed?—The smaller the power, the greater capacity there is left for coal, and therefore the greater number of days' coal it would carry.

702. And the less speed?—And less speed having less power.

703. And the smaller proportion of power would of course consume less fuel in an equal time?—Exactly so.

704. Would not the greatest proportion of power consume the least fuel in equal distances?—Against winds or tides it is so; but in calms and fair winds it is not.

705. What is the greatest distance you suppose a sea-going steamer to run without changing?—The same steamer should not go more than 2,000 or 3,000 miles without a relay, or time to put the machinery in order.

706. Does that also include without taking in coals?—A voyage of 2,000 or 3,000 miles may be performed in one stage, but it would be desirable on every account to divide it and take less coal.

707. What is the greatest distance she would go without coming to a station to take in fresh coals?—The distance is limited only by the quantity of coal she can carry.

708. What is the greatest distance you think a steamer could go without taking in fresh coal?—The greatest distance I have known a steamer to perform was the Enterprise, on her voyage to the Cape, in which she carried 37 days' coal.

709. With continued steaming do you mean?—Yes; she steamed 34 days, and had three days' coal left.

710. Do you mean steaming day and night?—Yes.

711. Besides the coal, is it not necessary to give the engine rest?—It is; and the more frequently they can be stopped to clean and adjust, the better they will perform.

712. Then your observations must be supposed to apply to both?—Yes.

713. What is the comparison as to the duration between copper and iron boilers?—Copper boilers are found to last about seven years, without such repairs as render it necessary to take them out of the vessel, whilst iron boilers must be taken in four years.

714. Which would you prefer on the whole?—I should prefer copper for long sea voyages.

715. Is not the thickness of the metal an advantage in raising steam?—The metal is of the same thickness, whether the boiler be of copper or iron.

716. The salt water does not affect copper so much as it does iron, does it?—No, it does not.

717. What is your opinion of the relative advantage of the common paddle-wheel with that of any other invention with which you are acquainted?—The common simple paddle-wheel, when the dip does not exceed one sixth of the diameter, is an excellent propeller, and scarcely admits of improvement; but when vessels are so deeply loaded that the dip exceeds this in any great degree, a wheel with feathering boards will propel faster.

718. You have fitted river boats with vibrating cylinders, have you not?—Yes.

719. What may be considered to be their principal advantage over the other?—The advantage of vibrating cylinders in river boats is, that they are more simple in their construction, lighter, and occupy less space.

720. But in point of weight and space what is the advantage?—Reduction in weight is the most important consideration in river navigation.

721. Is not the power conveyed more immediately to the crank by the oscillating cylinder?—The power is more durable [directly?] communicated from the piston rod to the crank; the engines are, as it were, suspended to two strong beams, which lie across the gunwale, and project for the support of the wheels, forming an independent frame, in which the strain of the engine is confined; the whole resting on the upright sides, the weight is more equally distributed over the whole vessel; thus partial pressure on the bottom is avoided; this admits of the vessel's being of the lightest possible construction.

722. Is not the disadvantage, that it is very difficult to keep the connecting pipes steam tight in oscillating cylinders?—As we construct that part, there is not the least difficulty.

723. Has not that been found to be the case?—Speaking of those we have made, no such difficulty exists.

724. Must there not be continual wear on the connecting pipes, from the motion of the oscillating cylinder?—Not if they are properly constructed.

725. What is the largest power upon which you have constructed those cylinders?—Two thirty-fives is the largest we have made upon this construction, and that was for a sea vessel.

726. Would you think it advisable to make them of a larger power for sea-going steamers?—The principle is exactly the same in this as if on the ordinary construction; and so far as we have tried them, work just as well, and produce the same effect in speed, and economy of fuel, as our other engines.

727. What is the advantage of weight and space?—A reduction in the weight of the engine leaves greater capacity for cargo and fuel.

728. What is the extent of the improvement of weight and space?—About 10 per cent.

729. One fifth of the weight and one fifth of the space do you mean?—No; about one tenth of these.

730. Is not the pipe in the fixed cylinder, which brings the steam, connected with the cylinder by means of flanges, which are secured very tight together; and in the oscillating cylinder, must not the cylinder continually move on the end of the pipe, and is the chance of becoming less steam-tight greater in the oscillating cylinder than it is in the fixed cylinder?—No; the union is effected by a stuffing-box packed with hemp, and is kept perfectly tight without the least difficulty.

731. Is it more expensive than the other?—No, they are rather cheaper.

732. Would they not be apt to be deranged in a heavy rolling sea?—We have not found that to be the case: one has been working in a cargo vessel, between Dover and London, during the last winter to the present time.

733. What is the greatest extent of time that you have had oscillating cylinders at work?—About four years and a half or five years.

734. On the sea?—No; to Richmond.

735. That is a small high pressure, is it not?—No; it is a low pressure.

736. Have you had one on the sea for the last three years and a half?—No; only during the last year.

737. Was there not a second steamboat with an oscillating cylinder going to Richmond?—There was one to Hammersmith last summer.

738. How did that succeed?—Very well, I believe.

739. The packet boat from Dover to Calais makes use of an engine of that kind, does it?—Yes.

740. Is that one of your manufacture?—No.

741. Is not the friction greater in the oscillating cylinder than it is in the fixed one?—No; as the number of bearings and moving parts are reduced, the friction should be reduced also, unless, indeed, it be badly constructed.

751. Have you considered the construction of the American steam raft?—I have seen a description of it.

752. Do you think highly of it?—It is certainly an ingenious method of obtaining great speed in smooth water, but its application is limited.

753. What do you think of the practicability of applying it generally?—It would not do at sea; and as it must draw more water than a single vessel, it would not do for shallow rivers.

754. The speed of it is very great, is it not?—It is so stated, and I believe it may be so, for the following reasons: the two pointed cylinders, from their form, may be made of the lightest materials, and need not be made of larger diameter than is sufficient to displace the total weight; their form offers the least resistance, and their relative position gives the required stability.

755. What do you think is the best

kind of coal for steam vessels, with respect to power and safety from spontaneous ignition?—Hartley, Elgin, Inverkeithing, Ward's Llanelly, Llangennech, and Lydney, are all esteemed good coals, and are free from the danger of spontaneous ignition.

756. What is that Scotch coal?—The three first named are Scotch coal.

757. How is the Welsh coal, do you consider, upon those points?—The Welsh coal produces very great heat, and is very effective; but the heat being confined to the fireplace more than other coal, it destroys that part of the boiler faster than the Scotch coal. The heat is more intense in the fireplace, and less is carried forward to the flues than by the other coal.

758. What is the comparison of the proportion of the Scotch coal to the English coal in its power?—I think they are much the same. We have made many experiments, and we do not find much difference.

759. The Welsh coal is considerably greater, is it?—I do not think it is. It has the advantage of not smoking.

760. Is not that because every part of the coal is consumed?—Yes.

761. No portion is carried off, must it not therefore be a coal of greater intensity in a given bulk on that account?—I cannot state that it is more powerful, or more economical, but the heat is more intense in the fireplaces.

762. Must it not therefore be a coal of greater intensity of heat than if a portion of it were carried off?—It is not so productive in the flues. It does not carry its heat forward, it is more like the fire of a forge.

763. Then, including the expense and power, you would give a decided preference to one species of coal rather than another?—I prefer the Scotch coal.

764. On what account?—I think it injures the boilers less, and leaves less residuum.

765. What species of Welsh coal do you allude to?—Llangennech and Ward's Llanelly are Welsh coal, and are without smoke.

766. Under what circumstances does spontaneous ignition occur?—Coals which contain iron pyrites, and have become damp, are most liable to ignite.

767. What do you think of the Forest of Dean coal?—Some of the Lydney coal which we tried proved very good.

768. Do you ever use the Kilkenny coal?—No.

769. At what should you estimate the expense of such a vessel as you consider best calculated for a long sea voyage?—A vessel of 800 tons, and 200 horse power, would cost about £33,000, fitted out in the best manner, with engine and every equipment.

770. Then such a vessel as you stated at first, is that the one that you prefer?—Yes.

771. What would be the prime cost, and what the annual expense of such a vessel?—The prime cost would be about £33,000.

772. And what the annual expense?—Do you propose to include the repairs with the expenses of working?

773. Working and every thing else—keeping her up, and every thing.—How many days do you propose her to work in the year?

774. Every thing that is to keep the vessel going for as many days as she shall continue, to the end?—The annual cost of working such a vessel, including coal for steaming one third of the time, and all other expenses, would be about £7,000.

775. In computing the entire expense of a steam vessel, and annual charge, what amount should you say for capital, the sum for insurance, repairs and renewals, calculated to create the perpetuity of the property?—I think that would not be less than 25 per cent. upon the outlay.

791. By which means could you go the greatest distance, without being obliged to take in coals; by the working a small power, and at a slow rate, or by working with a great power, at a rapid rate: for instance, an engine of 100 horse power, working at ten miles per hour, or an engine of 40 horse power, working at 7 miles per hour?—In moderate weather the small power with a great quantity of coal; but against head winds a great power will go the greatest distance.

792. In the construction of a river steamer, do you prefer the flat bottom, with the raking bows, and a parabolic curve?—I think for river steamers, where the draught of water is not very limited, the form of the vessels adopted on our river to Gravesend, or Margate, are best for speed, they are sharp, dividing the water sideways; but, perhaps, in a very shallow river, the spoon-shaped bow might be best. I do not know any experiment that would directly set that matter at rest; there are different opinions upon it.

793. What construction do you think the best for steering a vessel round a point against a strong current?—I should think the sharp vessel would steer better than the spoon-shaped vessel.

807. Would it be safe and desirable to use a high pressure engine in a small vessel on a river, in order to lighten her draught?—I am not acquainted with any high pressure engine that has been quite successful in a boat yet; all the high pressure engines that I have seen are as heavy as the low pressure engines, except in some few instances of a particular kind, which are not fit for general navigation.

808. How is it on the score of safety?—The low pressure engine is, of course, much safer.

813. What do you consider to be the comparative advantage of steam navigation in seas and rivers, as to its expense, and as to its certainty?—I can speak of the certainty better than the expense; the rate is increased more than double and the time halved. I have also an abstract of sixteen voyages made between Falmouth and Corfu by sailing vessels, the mail packets, before steam packets were established; it is the same voyage, and the average is 93 days, the steam packets giving an average of 47, which is half the time.

814. What is your opinion of the comparative advantage of the navigation in rivers and by sea in steamers, as to expense and certainty?—River navigation is less expensive, inasmuch as smaller vessels will suffice, and river voyages are performed with more certainty.

815. Suppose it were one thousand miles by river, and one thousand miles by sea, on which side is the advantage, both as to expense and certainty, both by steam?—River, certainly.

816. Suppose you have a whole space of 3,000 miles to pass by water, half of which is in one case to be performed by the river, and in the other the whole by sea, which of the two should you think preferable as to expense and certainty; which should you prefer as a permanent navigation?—Two kinds of vessels being necessary in this case, I cannot speak confidently.

817. Which should you prefer as to certainty?—I should think the certainty much the same in both cases.

818. Should you think a sea navigation as certain as a river navigation?—The Mediterranean packets show it to be very certain, for the fluctuation is only a very few days, which is very little for the whole four years.

819. On which side should you think the speed would be in favor, of the sea or the river, supposing there was a current of 3 miles in the river, and that you had 1,000 miles to go against that current, or 1,000 miles to go by sea, by which, by the river or by the sea, on an average, would you pass over in the shortest space of time?—I rather apprehend the sea.

825. You have given your opinion as to the proportionate power of tonnage to sea-going steamers: on what data do you found that opinion?—From having fitted out a great many vessels.

826. Do you mean vessels employed in the service of Government, or do you mean vessels employed for private purposes?—Both.

827. What number of persons in proportion to the register of tonnage of the steam vessel would you allow for short voyages, and what for longer?—How many it would be safe or convenient?

828. No; how many men would you wish to take to man your vessel, that is, the crew?—I think about one man to every thirty tons, including the stoker.

829. What would be the proportion of passengers, or soldiers, if you were conveying troops?—About one man to a ton, I should think, or more for a short distance.

830. You have given us the quantity of fuel of every horse power, have you not?—Yes, I have.

831. What quantity of fuel, and what description do you allow per horse power per hour?—We allow eight pounds per horse power per hour.

832. And what is that calculation founded upon; is it founded upon the

average of the consumption?—Upon the consumption, and upon experiments made at different periods with engines of our manufacture.

833. What sized cylinder, and what length of stroke, do you allow for 180 horse?—Two cylinders of 51½ inches, and 4 feet 6 stroke.

834. What would you allow for a 200 horse power?—Two cylinders 53 inches diameter, and 5 feet stroke.

835. What would you allow for a 250?—Two cylinders, 59 inches diameter, 5 feet 6 inches stroke.

836. What would you allow for a 300 horse power?—Two cylinders, 64 inches diameter, 6 feet stroke.

837. What pressure do you use in the boiler?—About four pounds.

838. And what in the cylinder?—As near the same as an open pipe will receive it.

839. And what proportion is the paddle wheel to be to the length of the stroke?—From four to five times the length of the stroke.

840. What breadth of float would you recommend?—For river navigation, the wider it is the better; for sea navigation, about one third the diameter of the wheel.

841. What length of time would an engine work without injury?—In one spell do you mean?

842. Yes.—They are frequently worked from Falmouth to Gibraltar, which is 1,100 miles, in one spell.

843. What is the greatest and the shortest length of time they take to do that distance; that is, a spell of 1,000 miles?—Eight is about the shortest, and 12 the longest.

844. How long should an engine last if well managed, without repairs?—About from 4 to 5 years.

845. What parts of the engine and boilers are most liable to accidents?—Those parts most exposed, such as the wheels; then the moving parts, cross heads, beams, &c.

846. Can duplicates of those parts be kept on board?—Yes.

847. Does it require any more engineers to manage an engine of 300 horse power, than it does to manage one of 100 horse power?—It does, but not in proportion to the increase of power.

848. In proportion to the power, is a large engine more economical than a small one?—Yes, it is rather.

849. Does it consume less coal in the same proportion?—It consumes less coal in proportion as the power increases.

850. Suppose a vessel to have 300 horse power in smooth water, or a fair wind, could you work it at the same consumption of fuel which a vessel of 200 horse power would be worked at, by throttling the valves, wire-drawing the steam, or any other mode of working the engines?—Yes, you may do so.

877. Have you ever made experiments on the combustion of wood, for the purpose of raising steam?—I have not myself made those experiments, but I am aware that such have been made.

878. Are you sufficiently acquainted with the subject to give an answer as to the proportion of space alone that a day's consumption of wood would bear to a day's consumption of coal?—I can only state generally, that it requires three times the weight of wood to produce the same effect as coal.

885. You were speaking of the comparative advantages of river and sea navigation; would not the boilers last longer by supplying them always with fresh water?—They would, and that would be an advantage in favor of the river.

886. Are you aware of the improvement introduced into some steam vessels, to condense the steam in the pipes, without admitting the jet of water into the aperture?—I am.

887. If this were adopted and found efficacious, you would not use the salt water at all, neither for condensing nor for the boilers, would you?—No, I should not.

888. Do you think it likely that this will be brought to perfection?—I do not know; if it succeeds it will be a very great advantage.

889. Is the salt water more or less injurious to copper or to iron?—It is much less injurious to copper than to iron.

890. Is it in comparison with fresh water?—Yes.

891. If that plan which is now trying be carried into execution, will that diminish the burthen of the engine itself in the vessel?—No, it rather increases it; but it promises to reduce the quantity of coal.

892. That you find to be one of the effects to arise from the improvement, do you?—Yes, I think that would follow.

893. It would get rid of the condenser, would it?—No, it requires a larger condenser.

894. You mentioned that, as applied to sea voyages, copper would last about seven years, whereas iron would last only about four years; what would be the proportion in fresh water?—In fresh water, for steam navigation, the boilers last about seven years.

895. The iron boilers are you speaking of?—Yes; copper boilers are not used in fresh water; there is no inducement to use copper boilers in fresh water, because iron lasts so long.

896. Are copper boilers used in salt water?—Yes.

898. In preferring copper boilers to iron ones for salt water, do you make an allowance for the difference of the tensity in copper, and the different temperature in the boiler; that copper diminishes in tensity as heat is applied, and iron does not?—We find no difference in that respect; the copper and the iron are of the same thickness, and the question turns entirely upon their durability.

OPENING OF THE RAILROAD.—Yesterday was a great day on the new Railroad between Baltimore and Washington, being the first day of its being opened for travel all the way from the depôt at Baltimore to the foot of Capitol Hill in this city.

It was a glorious sight to see four trains of cars, with each its engine, extending altogether several hundreds yards in length, making their entry by this new route, to the delight of thousands of spectators on the elevated grounds directly north of the Capitol. These cars, besides bringing back our own Mayor and Members of the Corporation, and City Guests, who went out to meet them, brought as many Ladies and Gentlemen of Baltimore as made up the whole number of about a thousand persons carried by the cars. These, accompanied by two bands of Music, after debarking, marched in procession to Gadsby's and Brown's Hotels, at both of which sumptuous and bounteous entertainment was provided, and liberally partaken of. The cars arrived at a little before one o'clock, and at four our friends from Baltimore re-embarked, and returned to their homes, without, we trust, any accident or other inconvenience than what was occasioned by the dust on the roads and streets.—[National Intelligencer.]

[From the Jersey City Gazette.]

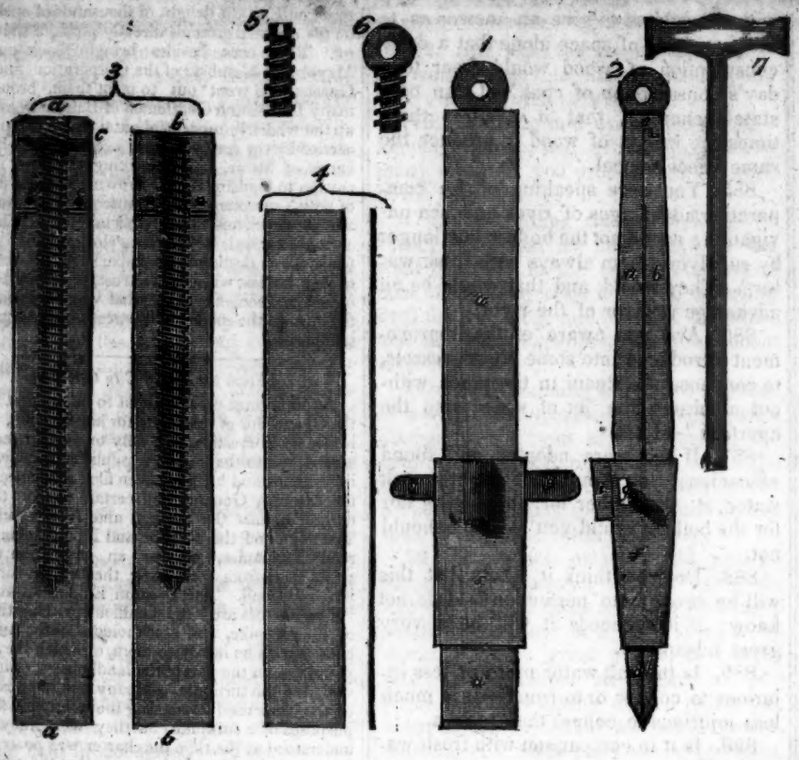
An important case is about to be brought before the Chancellor of this State for his decision, which is deeply interesting, not only to the parties concerned, but to the travelling public generally. An information and bill have been filed in chancery, by the Attorney General and certain relators therein named, against the Trenton and New Brunswick Turnpike and the Trenton and Philadelphia Railroad Companies, praying an injunction to restrain them from converting the straight turnpike into a railroad. The Trenton Emporium says:—"The relators are large landholders along the line of the turnpike, and stockholders in the turnpike company. The injury to them, of which they complain, is—on the part of the landholders, that they sold, and the turnpike company became possessed of, the lands used in making the turnpike, for the purposes of a turnpike, as they were known and understood at the time the charter was passed, and for no other purposes whatever—that the construction of a railroad thereon is a departure from the plain terms on which the lands were sold to the company, as well as a violation of the provisions of the act incorporating the company—that this departure from the original terms and provisions under which the road was made, will seriously affect public rights, inasmuch as the turnpike is, and ought to be, a public highway, free and safe for vehicles of all descriptions, which cannot be the case if it should be converted into a railroad. On the part of the complaining stockholders, it is alleged, that the directors are squandering the money of the company for objects never contemplated by the charter—that no dividends have been paid for two years past, but that all the resources of the company are appropriated to the digging of ditches, quarrying, embanking, and laying wooden rails, to the manifest injury of the road as a turnpike, and without any sufficient authority for so doing. These are the principal facts complained of.

The legal points in the case are raised in the bill, by alleging that the monopoly are doing these things under the pretence that the principles laid down by Kent, and Webster in his *first* opinion, are true; the contrary of which is held by the attorney general in behalf of the state and the relators, who charge, in substance, that the legal doctrines as laid down in the irrefutable opinion of the late chancellor Williamson, are true, and ought to be sustained by the court.

"To the bill is annexed the usual affidavits by the relators, of the truth of the facts stated, accompanied by affidavits of indifferent individuals, of the digging of ditches, quarries, raising embankments, &c., in the turnpike, and that about one thousand feet of wooden rails ready for shoeing, have been laid.

"It is expected that the chancellor will appoint an early day for hearing the argument, and that prompt justice will be done both parties."

We stated a few weeks since that twelve suits had been brought by the Philadelphia and Trenton Rail Road Company against the Trenton Delaware Bridge Company, to exact twelve several penalties, of thirty dollars each, for demanding a higher rate of toll for passing the Delaware Bridge, than they are authorized to demand by their charter—viz: for charging 62 1-2 cents for a coach drawn by two horses, when their charter only authorizes them to demand 50 cents. We now learn from the Trenton Argus, that these suits were tried last week, and judgment in each were rendered for the plaintiff. There are other suits now pending against the company, and it is said more are about to be commenced.



[From the Repertory of Patent Inventions, &c.]

Specification of the Patent granted to JOHN SMITH, *for a certain Improvement on Chisels or Instruments for cutting or dressing Stone, and certain other Substances.* Sealed December 23, 1834.

In ordinary millstone chisels, and also in chisels for cutting, dressing, or working other stone, and also for dressing cast iron, it is well known that the cutting edges quickly become worn, and consequently constantly require sharpening, which operation is performed by heating the same and forging such cutting edges to the degree of sharpness required; the operation of tempering is then to be performed; all which requires much time and judgment, and in places distant from a forge becomes a matter of considerable consequence. Now, the object of my invention is to use a thin plate of steel, properly tempered, which being supported on either side by cheeks, such steel plate, (as it becomes worn,) being capable of movement in order that a sufficient quantity for the cutting edge shall project beyond the ends of the cheeks, yet such thin steel plate, when in use, is rigidly held between the two cheeks, and prevented receding from its work by a screw, whereby the whole, when combined, will produce a strong and highly useful chisel, as will be hereafter more clearly described.

Fig. 1 represents the side view of a chisel constructed according to my invention.

Fig. 2 an edge view thereof.

Fig. 3 represents the two cheeks, which I usually construct of iron and case-harden them.

Fig. 4 is a flat view, and also an edge view of the thin steel plate which constantly supplies a cutting edge to the chisel.

Fig. 5 is a short male screw which fits the female screw formed in the cheeks of the chisel.

Fig. 6 is a small screw, with a ball or knob at the top, which screws into the upper part of the chisel when the same is intended to be used with a mallet. And it may be desirable here to remark, that when the chisel is used for dressing millstones it is affixed in a wooden handle similar to those used for ordinary chisels.

Fig. 7 is a hammer for driving the socket and also the wedge or cotter hereafter mentioned; and on the end of the handle is formed a key for screwing up the internal screw, fig. 5, in order to press forward and support the steel blade as it becomes worn.

Having thus generally referred to the figures in the drawing, the construction of the parts there shown will be evident to any competent workmen, I will enter shortly into the manner of putting the same together, first observing that in each of the figures shown in the drawing the same letters of reference indicate similar parts. *a* and *b* are the two cheeks which constitute the main frame of the chisel; these cheeks go together by means of the mortice, *c*, and the studs, *e*, *e*, which latter into recesses formed in the cheek, *b*, as will be evident on inspecting the various figures. The thin steel plate is next inserted between the two cheeks, *a*, and *b*, the socket, *f*, is then to be placed on the end of the cheeks of the chisel, which being wedge form, the driving up of the socket will cause the same to bind more closely on the steel plate between them, and hold the same rigidly, and thus prevent lateral spring. It should be remarked, that on the cheek, *a*, is formed a groove, and in the socket, *f*, are two openings through which the wedge or cotter, *g*, is inserted and driven, by which the whole of the parts are securely held together. The screw, fig. 5, is to be screwed up within the female screw, in order to press against the other end of the steel plate, to assist in preventing its receding from its work. In using a chisel so constructed, the steel plate which constitutes the cutting edge will only require occasionally to be rubbed or ground on a stone in order to improve the sharpness, and as the same becomes worn away, in order to project a further quantity beyond the end of the cheeks, *a*, *b*, it will only be necessary to remove the wedge or cotter, *g*, and slide down the socket by giving it a few blows on the knob, *i*, the screw, fig. 5, may then be screwed up by the key on the handle of the hammer (fig. 7), which will project a further quantity of the steel plate below the ends of the cheeks, and such will be the case till the screw, fig. 5, arrives at the end of the female screw, when there will require a fresh steel plate to be inserted. At each time of projecting the steel plate the socket is again to be driven up, and the cotter or wedge inserted as before described.

Having thus described the nature of my invention, and the manner of carrying the same into effect, I would have it understood that I do not claim any of the parts separately of which the same is composed, but I do hereby declare that I confine my claim of invention to the combining of the various parts as above described into a chisel for cutting or dressing stone, and certain other substances, whereby I am enabled to use a thin plate of steel as the cutting edge, which may from time to time, as it becomes worn, be projected forward and offer fresh quantities for use, and yet, when in use, be rigidly held between the two cheeks, and prevented receding by the male screw, as above described.

Enrolled Feb. 23, 1835.

[From the London Mechanics' Magazine.]

HUNTER'S STONE-PLANING MACHINE.

In March last, a patent was granted to Mr. James Hunter, of Leys Mill, Arrobath, "for certain improvements in the art of cutting, or what is commonly called facing and dressing certain kinds of stone." The specification of Mr. Hunter's method has not yet been enrolled; but from a Report, with a copy of which we have been favored, made to the proprietor of the Leys Mill Quarries, (W. F. L. Carnegie, Esq.,) by Messrs. Carmichael and Kerr, engineers, of Dundee, who were invited to see the method in actual operation at these quarries, and to verify the results, it appears to be immensely superior to any other hitherto devised. Mr. Hunter has seemingly realized that great desideratum, a power-machine for the cutting and dressing of stone, capable of withstanding the extraordinary friction to which it must necessarily be subjected. The despatch with which immense blocks of stone are cut up and dressed, by Mr. Hunter's apparatus, is prodigious; yet the cost of tools is next to nothing—"only a half-pennyworth of steel for every hundred feet of planed surface!"

Report of Mr. Charles Carmichael and Mr. John Kerr, Engineers, Dundee, on the power of Mr. James Hunter's Stone-planing Machine.

Sir,—Agreeably to your desire, we have visited Leys Mill Quarries, and attended minutely to the performance of the stone-planing machines. These machines do their work most effectually, as the following experiments, which we witnessed, will testify.

Experiment First.

We went to one of the machines that had six stones laid on the bench, one of which was planed, and the second begun to be operated upon; while this was doing, we took the dimensions of the other four stones, viz.:

Number of Stones.	Length of Stones.	Breadth of Stones.	Thickness.	Finished Thickness.	Quantity taken off.
	ft in.	*ft. in.*	*inches.*	*inches.*	*inches.*
1	5 3	2 6	3½	2½	1
2	5 0	2 8	3	2⅜	⅝
3	5 6	2 6	6	4¼	1¾
4	4 0	2 3	4	2½	1½

The average thicknesses of the above stones are given, but many parts of them were much more than the thickness stated. One of the broad finishing tools was blunted ere the experiment began, and was changed when No. 2 was in the operation of being planed. No. 3 was a very hard stone, and was what is technically called yolk, in planing which one of the roughing tools broke at the point; still it wrought out the stone, and was then replaced. A splinter came off the face of the last stone, when about half finished, which was another cause of delay, as they had to go over it again; but, notwithstanding the delay occasioned by the breaking of one tool, by another being changed, and by having to go over the one half of the last stone twice, yet the time altogether was forty-five minutes, being at the rate of sixty-five superficial feet per hour.

Experiment Second (same machine.)

Five stones were now put on the planing machine, of the following dimensions, viz.:

Number of Stones.	Length of Stones.	Breadth of Stones.	Thickness.	Finished Thickness.	Quantity taken off.
	ft. in.	*ft. in.*	*inches.*	*inches.*	*inches.*
1	4 3	2 2	4¼	2¼	2
2	3 9	1 10	4¾	3¼	1½
3	3 4	2 8	6	4	2
4	3 6	2 0	6½	4¾	1¾
5	3 8	3 6	5½	4½	1

These stones were planed in forty-two minutes.

The above stones were taken from the quarries without selection, and the men that were working the machine were not informed of the object of our visit. Experiment first began at half-past twelve o'clock, noon, and experiment second was concluded at nine minutes past two; thus leaving twelve minutes for cleaning and reloading the bench of the machine. Had all the stones been 5½ feet long, they would have been planed in exactly the same time, for the machine travels the distance for that length; so that nearly sixty-seven feet of surface would have been planed in forty-two minutes.

The stones, as they come from the machine, are remarkably smooth and straight on the face; and were it not for the shade left by the tools, we would be apt to think them polished, as they feel as smooth as a polished stone.

We were told by the foreman, that during the last week there was planed* 4,400 superficial feet, more than half of which was planed on both sides, (indeed more than half of all the stone that leave the quarry are planed on both sides,) by four machines. We saw the pay-list for the week: the amount was £6 1 6

Add blacksmith for dressing and grinding tools, 12 0

£6 13 6

We were further informed by the manager, that during the last summer there were upwards of 100,000 feet of pavement planed by four machines; and there was one thing that struck us most forcibly, which is the small degree of wear on the tools. Three shillings a week, or sixpence per day, is the cost of the labor for dressing and grinding the tools of one machine; and the whole consumption of steel during the last year was under a hundred weight, so that, if we measure both sides of those stones that were actually planed on the two sides, it will be seen a pound of steel will plane 1,500 feet, or about a half-pennyworth of steel for every 100 feet of planed surfaces.

There are now five machines working in the quarry, wrought by a steam engine of six-horse power, the steam cylinder of which is sixteen inches diameter, stroke two feet. Besides the machines, the engine has to work two inclined planes, one of which is for dragging up the pavement from the quarry to the machines; the distance on the incline 48 feet, ascent 1 foot in 5; average quantity about thirty tons per day of ten hours.

The second incline is for dragging up the rubbish from the quarry to the place where it is deposited; distance 87 feet, ascent 1 foot in 4; quantity from 50 to 60 tons per day of ten hours.

The above shows what the engine is actually doing; and we have no hesitation in saying that the engine would work eight machines besides the inclines without being overloaded; and our opinion is that a machine, on the average, is not much more than one-half-horse power.

We are, Sir, your most ob't serv'ts,

C. Carmichael,
John Kerr.

To W. F. L. Carnegie, Esq., Kimblethmont, Arbroath.

Note by Mr. Carnegie.

To explain the difference which is apparent between the quantities of planed stone, which, according to the statement of the engineers, *might* be produced in a given time by the machines, and the quantity stated to them as in one week actually sent to market, it is necessary to remark,—1st, That it is found in practice to be cheaper to dress the stones by the machine in the rough state and shapeless form in which they are taken from the quarry, and to square them by hand afterwards, than to follow the opposite course, as is done where the whole work has to be performed by hand; thus a great quantity of work measured by the engineers, but not available in the market, is nearly lost. 2d, A considerable quantity is required to be dressed over twice on one side, or on both sides, according to circumstances; thus the stones, No. 3, in Exp. 1, and Nos. 2, 3, 4, 5, in Exp. 2, being too thick, were redressed on the under side to suit the market. 3d, The quarry does not always afford stones of a size to fill the benches, when much power is lost, as the machine has to traverse the whole width. 4th, Other circumstances, (such as bad weather, &c. &c.,) which will readily present themselves to the minds of those conversant in these matters, always occur to prevent general results from attaining the extreme limit, which may be calculated as possible from the data of a short experiment. Mr. L. C. having been present, can confidently testify as to the correctness and impartiality with which these experiments were conducted, and to the truth of the information furnished to the engineers, by those in his employment.

* See subjoined Note by Mr. Carnegie, on this point.

[From the Journal of the Franklin Institute.]

Abstract of the Specification of a Patent for a Machine for Moulding Bricks. Granted to William C. Grimes, of York, in the county of York, in the State of Pennsylvania, Dec. 2d, 1834.

This machine is constructed upon the following general principles. A wheel is affixed horizontally to, and revolves with, an upright shaft, the latter being properly supported above and below by a suitable step and box, in which its gudgeons turn. The moulds in which the bricks are to be formed are placed around and upon the face, or upper side, of the wheel, near its periphery; these may stand in the direction of radii from the centre of the wheel, or otherwise. Two or more moulds may be united or connected together A hopper, or trough, of sufficient capacity, is placed in an inclined position, with its lower end over one or more of the moulds at a time, as they pass under it. This hopper is to contain the tempered clay of which the bricks are to be made, and though that part of the bottom of it which projects over the mould, or moulds, an opening, or openings, are made of the length and width of a brick, through which the clay is to descend into the moulds. The motion of the wheels is not to be continuous, but intermitting; while it is at rest, a mould is immediately beneath the opening in the bottom of the hopper, or trough, and the clay is then forced by a piston down into it; the piston then rises, and the wheel moves, and the moulds are thus filled in succession. As the filled moulds pass round upon the wheel, they are removed, and replaced by empty ones.

It is manifest that two or more moulds may be filled at the same time, by the use of two or more openings and pistons, and the employment of such other devices as may thereby be rendered ne-

cessary, sufficient power being applied for that purpose.

The number of moulds will depend upon the diameter of the wheel, which will admit of considerable variation, but from four to six feet I think the most convenient.

The moulds must be slightly attached to the face of the wheel, which may be done in various ways, the following being among the best. From the under side of the moulds project two dowel pins, which fit into corresponding holes in the face of the wheel, by which means the moulds are kept from any lateral or horizontal movement. The dowel pins should be short, so that the moulds may be readily disengaged from the wheel. The holes for the pins, or dowels, in the face of the wheel, should be pierced through it, so as to prevent them from being filled, or choked with dirt, &c.

Two or more moulds may be united in one frame, as is usual in brick moulds. The frames of the moulds are inclined from each other, like key-stones, so as to stand as radii from the centre of the wheel, thus forming the proper arch or curvature around the wheel, and their upper surfaces should form a true plane. Each frame of moulds has a thin plate, or board, which is equal in length and breadth to its corresponding frame, and forms the bottom or bed of the moulds. The aforesaid dowel pins pass loosely through holes made for the purpose in this plate; the latter not being otherwise fastened to the moulds, its use will be apparent to any one acquainted with the usual mode of moulding bricks.

The machine may receive its motion by a strap, carried around the fly-wheel, and over a drum, or pulley, which last may be driven by any competent power; or the machine may receive its motion by a crank attached to the fly-wheel shaft, or in any other convenient mode.

I do not mean to confine myself to the particular form or arrangement of the parts as before specified, but to vary them as experience or convenience may dictate, whilst the general principle remains unchanged.

What I claim as new, and as my invention, and for which I ask letters patent, is, 1st. The moulding of brick upon, or in moulds upon, the face of a revolving horizontal wheel, disk, or rim, constructed and acting upon the principle herein specified.

2d. The manner of forcing the clay into the moulds, by the combined action of a feeder and piston.

3d. The general construction and combination of the respective parts of the above described machine, from which general combination it derives that character by which it will be readily distinguished, by any competent machinist, from the various machines for moulding bricks already in use.

And I do hereby declare that I do not intend to claim as my invention, the piston, cranks, hopper, or any other part of the said machine, taken separately and individually, as these may constitute the elements of other machines; but, as aforesaid, the construction and combination of these parts upon the principle by me devised, and herein fully exemplified.

WILLIAM C. GRIMES.

The foregoing comprises about one-half of the specification, the remainder generally referring to the drawings. The same remark will apply to the next patent, and also to those for making nails. The machines manifest much ingenuity, and an account of their performance, when completed, has been promised, which, if satisfactory, will appear in the Journal. —[ED. J. F. I.]

Abstract of the Specification of a Patent for a Machine for Pressing Bricks. Granted to WILLIAM C. GRIMES, of York, York county, Pennsylvania, December 2d, 1834.

The general principle of the construction and operation of this machine is briefly as follows.

Upon a vertical shaft, or spindle, is fixed a wheel, disk, or rim, of sufficient size, which is to revolve horizontally. In the upper face of this wheel are a number of holes, or mortises, which are the moulds in which the bricks are to be pressed. The bottoms of these moulds are not a fixed portion of the moulding wheel, but are the upper faces of movable pistons, that slide up and down in the moulds, as the wheel revolves. The rods, or posts, which support and guide the pistons, descending vertically from them. The lower ends of the piston rods, or posts, slide round as the wheel revolves, upon a circular horizontal platform, or rim, or rather upon two platforms, one-half of the circle, or thereabouts, being elevated above the other about two or three inches. When the pistons rest upon this elevated portion of the circular rim, or platform, their upper faces are flush with, or above, the upper surface of the wheel; hence the bricks which have been pressed, being thus raised, can be removed with facility; while upon the opposite side of the wheel, the pistons upon the lower portions of the rim have their upper surfaces sunk down within the moulds, leaving cavities into which the bricks are dropped, as the pistons are depressed, the motion of the wheel, which is intermitting, not being too rapid for that purpose.

Just before the pistons rise on to the elevated portion of the circular rim, they pass under the short end of a strong iron lever, which projects over the face of the horizontal moulding wheel, far enough to cover the moulds as they pass under it. The level receives a continuous motion from a crank and shackle bar, the latter being jointed to the opposite, or long end, of the lever. The crank is regulated and assisted by a heavy fly-wheel, in passing that point in which there is the greatest resistance to its motion.

While a brick is being pressed by the short end of the lever, the moulding wheel is at rest, as it receives its motion by a pall, or movable hand, that has a vibratory or reciprocating motion, which it receives from a crank fixed for that purpose on to the end of the fly-wheel shaft.

The horizontal moulding wheel may be of iron, and cast in one entire piece, of such thickness as may be necessary to its strength, the requisite depth of the moulds being formed by a flanch, rim, or projection, standing out upon the face of the wheel, the said rim, or flanch, making the sides and ends of the moulds. The moulds being in a circle, are placed as near to the periphery of the wheel as a proper thickness of metal will allow; the inner ends of the moulds may approach very near to each other, leaving only sufficient strength of metal between them; hence it may be seen that the number of moulds in the face of the wheel will depend entirely upon its diameter, which may be very much varied, but from three to six feet I think the most suitable.

The moulding wheel, pistons, horizontal rim, and fly-wheel, should consist of cast iron, and, in fact, the whole machine should be made of metal.

Motion may be given to the machine by a strap, carried round the fly-wheel, or by the crank attached to the end of the fly-wheel shaft, which may project beyond its bearing for that purpose.

I do not mean to confine myself to the particular form and arrangement of the parts as before specified, but to vary them as experience or convenience may dictate, whilst the general principle remains unchanged.

What I claim as new, and as my invention, in the above described machine for pressing brick, and for which I ask letters patent, is—

1st. The revolving horizontal wheel of moulds, constructed in the manner, or upon the principle, herein described, in which the processes of putting in, pressing, and removing the bricks from the moulds, are all done at one and the same time.

2d. I also claim the revolving pistons, as connected with the revolving moulds, and operating in the manner, or upon the principle, set forth in the foregoing specification.

3d. I also claim the employment of the stationary rim with a double platform, for raising and depressing the pistons, as before described.

4th. I also claim the scolloped rim, or flanch, for the purposes hereinbefore set forth.

5th. I also claim the pressing of brick by means of a lever, operating, and operated upon, as herein shown.

6th. I also claim the general construction and combination of the respective parts of the above described machine, from which general combination it derives that character by which any competent machinist will readily distinguish i from any of the brick pressing machines previously in use. But I do not claim the pistons, fly-wheel, shafts, or any other part, taken individually, as these may constitute the elements of other machines; but, as aforesaid, the construction and combination of these parts upon the principle by me devised, and herein fully exemplified. WILLIAM C. GRIMES.

AGRICULTURE, &c.

[From the Maine Farmer.]

NORTHERN SHEPHERD. — The book lately published by the Kennebec County Agricultural Society, with this title, contains much valuable matter, and particularly in those parts of it which treat of the management and diseases of sheep, with the cures of the same.

As this work is before the public under the authority of the Agricultural Society, whatever it contains, which may tend to misdirect public opinion, should be corrected. The intention of the subscriber is to confine himself to the correction of a very mistaken view of the Dishley breed of sheep, compared with the Merino breed.

The Dishley breed of sheep has been introduced into this country at a great expense, and has been highly approved of in Pennsylvania and Massachusetts, and should not therefore be hastily condemned.

With due deference to those of the Committee who prepared this comparison, it does appear from the Vote of the Society, that its object was (through its Committee) to ascertain "*the best breeds of sheep and the mode of improving them.*" Would it not then have been better, and more consistent with this vote, to have described the character and qualities of each breed noticed, and to have left it to the judgment of individuals to make their own selection. The course the Committee have taken tends to depreciate a breed of sheep in high estimation in the first agricultural country in the world, and to check important experiments which might prove beneficial to this country. It is very remarkable that the British depend almost entirely *on the importation of Merino wool* for the manufacture of the finest broadcloths, and give their attention to other breeds which are *more profitable.*

It is well known that the rage for Merino sheep had nearly swept the country of what was called the "native or common breed." Aware of the consequences, the subscriber pursued a course that would secure to the farmers a breed *better* suited for domestic use than the Merino.

Having previously sold his Merino flock, he bought of Col. Jacques, of Charlestown, a ram and ewe lamb of the Dishley breed, with long and fine wool, and selected twenty ewes of the Merino breed, intending by this cross to improve the *shape* and *constitution of the Merino breed of sheep*, and add to the fineness of the wool of the Dishley.

The following facts will show what benefits have been derived from this cross, and will prove that the Merino breed of sheep will not compare with the Dishley for *profits*, notwithstanding the Merino wool is finer.

In comparing the few sales of the Dishley and its cross, with the prices of the *well washed* Merino wool, there is no great difference.

Col. Green, of Winslow, had an offer of 55 cts. per lb. for the wool of his pure flock.

In 1831, the wool from this cross was sold for 60 cents, when well washed Merino wool sold from 60 to 65 cents.

The purchase of such wool by Mr. S. C. Whittier averaged 62½.

In 1833, from the same flock with the sales of 1831, the wool was sold for 41½ cents per lb., and well washed Merino wool on the sheep's back sold for 45½ cents at the same date.

Thus far the value. It is proposed now to furnish the evidence of the greater quantity of wool from the Dishley and the cross of it, than from the Merino.

Col. Reuben Green had a Dishley buck weighing, in health, 300 lbs., which gave of wool at one shearing 8 lbs.; 3 ewes gave 18 lbs.

Joseph Pillsbury, Esq., on the Thorndike farm in Jackson, has under his care 1000 sheep, whole or in part Saxon, which on the average yield to the fleece 3 lbs.

Dr. Bates, of Norridgwoc, has a flock of 52 Merino and some half blood Saxon and Merino. The average weight of a fleece, 3¼ lbs.

Mr. Allen Lambard, of Augusta, has a flock of 130 Merinos, part Saxon. The average weight of a fleece in his flock, 3 lbs.

Mr. Moses Taber has a flock of Merinos mixed with the Saxon. Before he had a buck of the mixed breed he has sheared from rams of the Saxon breed from 6 to 10 lbs.; no average of his flock.

Mr. S. C. Whittier has made extensive purchases of Merino wool, and the average of the fleeces, well washed on the sheep's back, does not exceed 2¾ lbs.

Dutchess County, New-York. This county furnishes the largest quantity of the best quality of Merino wool. From a source that may be relied on, in very extensive sales, the average weight of a fleece of well washed wool on the sheep's back does not exceed 2½ lbs, with a loss in cleansing of about 30 per cent.

The Northern Shepherd, page 128, states the average weight of Merino fleeces at 3½ lbs.

This weight of 3½ lbs. as an average, exceeds the weights stated from various sources, and ought not to be considered as the average to be used in the comparison between the Merino and the Dishley with its cross. It is not intended to dispute the fact, that the writer of the note had himself or knew of some sheep that gave this average weight of 3½ lbs., but it is a well known fact that *weight may be added* to a fleece, through an increase of yolk, by leaving the sheep 15 or 20 days after washing before they are sheared. This will at once account for the excess in weight over all other flocks mentioned. However this may serve the sellers, it is surely injurious to the purchaser, who has to cleanse the wool (of the yolk) before it is manufactured, at a loss of 30 per cent.

It will be fair to consider the 2¾ as the fair average, it being the result of extensive purchases made by one individual in our county, and is proper to use in the comparison. The weight of the average, after well washing and without cleansing, is per fleece 2¾.

Of the mixed breed the following facts are furnished. Mr. R. C. Rogers, of Ripley, Somerset county, had a buck of this breed about 6 years since. For 6 years the fleece averaged per annum 7 lbs. At the time he took this buck, his flock yielded 2½ lbs. on the average, and the average now is 4 lbs.

David Webster, of Rome, had a buck of this breed in 1830. The fleece, after it was well washed, weighed 7½ lbs. In 1833, after the fleeces were washed, the average weight of the same was 4 lbs.

Edmund Parker, of Norridgwoc, had a buck of this breed in 1830—no weight of fleece. In 1831, 11 lambs were selected, which were sheared August 4, 1831—weight of wool 21 lbs. 14 oz.

In 1832, at the usual time of shearing, and after they were well washed, an average fleece was taken, and its weight was 5 lbs.

4 bucks were sent to Dover, Penobscot county. Several of the fleeces of the lambs, from this cross with the common sheep, after washing weighed 6 lbs. and a Saxon lamb 6½.

Col. R. Green, of Winslow, from 6 half blood lambs had 38½ lbs.

Mr. Moses Taber's largest fleece from this mixed Merino 6 lbs. From wethers of the same cross from 4 to 5 lbs. It should be noticed here that the wool of this breed, when well washed, is fit for the manufacturer without cleansing.

The result of the preceding is, that the fair average of the Merino fleece is 2¾ lbs. The fair weight of bucks of the mixed breed is 7 lbs. The average may be about 6 lbs.

The average of fleeces from this mixed breed with the Merino and common sheep is from 4 to 5 lbs.

The public must decide how far the wool of the mixed breed exceeds in weight the wool of the Merino, and whether the *small difference* in value in favor of the *Merino wool* will make up the *great difference of weight* in favor of the *mixed breed.*

Mutton. The mutton from the Merino sheep is in no estimation. The lambs and wethers of the mixed breed afford the *best meat that has been in the market.*

Mr. Joseph Howland killed a wether, the 4 quarters weighed 76 lbs. and in his opinion it was the best of mutton.

The subscriber killed a wether, the 4 quarters weighed 60 lbs. The flesh was marbled with fat, and as well mixed as in a fat ox. I sold a hind quarter for 8 cents per lb. which was pronounced by the best judges, who partook of it, the best they ever tasted—juicy and high flavored.

This article, already lengthy, would be too long if further details were furnished from communications on hand. It may however be stated, from the experience of those who have the mixed, that the ewes are *better mothers*, will keep in better order on coarse food in winter and in poorer pastures in summer. That they have a remarkable disposition to fatten, and to have this fat in the fleshy parts, and that the lambs are fat and well grown early in the season.

As the Committee have omitted to

notice the qualities that constitute a perfect sheep, and which notice would have been useful to the farmer in the choice of his flock, the subscriber, for the farmer's benefit, offers two extracts, one from a valuable English work, entitled "The Complete System of Husbandry," by R. W. Dickinson, M. D., in 2 volumes quarto. The other is taken from a communication made to the Pennsylvania Agricultural Society, entitled "Hints for American Husbandmen," &c. The first of these gives a decided preference to the Dishley breed of sheep over all other long wooled sheep. There is a table giving the comparative value of 16 different breeds of sheep. No. 1 is the Dishley—No. 16 is the Merino or Spanish,—and the latter is the only breed in the list where there is no estimate made of it for mutton. A two year old wether gave 8 lbs. of wool, and the four quarters weighed 100 lbs. The extract follows:

"The advantage of this Dishley breed consists in its producing a better profit to farmers, *in proportion to the quantity of food consumed*, than most others; in being *more perfectly formed*, and consequently *more disposed to fat quickly*; in containing *a much larger proportion of meat to the weight of bone*; in thriving well on such pastures as would not support other sorts of the same size; in being capable of being kept or fattened in larger proportion to the acre than other breeds of the same size of carcase; in the wool being more valuable, though less in quantity, than the other combing wooled sheep, such as Lincoln and Teeswater; in being *ready for the butcher in the early part of Spring instead of the Autumn*. They usually have their lambs in proportion of ½ of the ewes; to which may be added, they are *peaceable* feeders in summer, and *hearty* feeders without waste of food in winter."

An extract from the "Hints for Husbandmen," &c.: "There is no mistake more prevalent, and more egregious, than that which ascribes excellence to *great size*. Unless it be had *easily* and at comparatively small expense, large size does not more determine the extent of usefulness in the quadruped than in the man. Weight is not always ascertained by size—it is ascertained more by compactness and squareness in certain parts, with rotundity of the barrel, than by mere extension of the frame. If the hind quarters be *long, deep* and *wide*—the shoulders be *placed* well back—the *breast be ample*—the brisket be protruded—the back be broad—the *loins wide*—the *girth behind the fore legs and over the chine be large*,—the animal must possess not merely *the frame which weighs most*, but the form which carries most weight in the valuable parts, and affording sufficient room for the action of the lungs; without which, health and thrift can be seldom found. Some animals have good forms, but are "shelly," as it is technically termed, conveying the idea of the absence of the due quantity of flesh. Some breeds produce too much fat in proportion to flesh; those which carry comparatively a large quantity of flesh "*marbled when ripe*," with the propensity to become fat *at an early age*, and in the shortest time, are those best fitted for grazing purposes. The quantity and quality of the wool is a matter of serious importance, when the value of sheep is to be determined. I do not mean by quality, the fineness of the fibre alone, nor do I mean to confine the remark to sheep whose wool is of the finest sort. The filaments of combing wool should part readily—those of fine wool should be *soft and elastic*, as if it had been frizzled. The mere fineness of the fibre, or length of the staple, is not the only test of excellence: a diseased or half starved sheep produces fine wool, but not an elastic nor useful material. The sheep which produce the finest fleeces are not *necessarily* the best to form *a breeding flock*. If their constitutions be not good, if *their forms be bad*, the secretion of yolk, which is essential for the support of the fleece, must be small; the offspring, consequently, will be a degenerate race. Thus in selecting Merinos, regard should be given to their forms, even in those parts of the country where the demand for the carcase is so small as to make mutton of little value."

I believe it was in 1831 that Mr. Sanford Howard bought some ewes, making his "selection for the carcase, and not for the fleece. With the exception of one, they had very little Merino with them, and the fleeces did not weigh more on an average than 3 lbs." These ewes were crossed with Col. Green's Dishley buck the past season and with mine since. The result follows:

1	3 year old ewe,	¼ blood,	from C. Green:	5¼
1	2 do. weather,	¼ do.	C. V.	5
1	1 do. ewe,	¼ do.		4¼
1	1 do. buck,	¼ do.		4¼
1	2 do. ewe,	¼ do.		4¼
1	1 do. wether,	¼ do.		5¼
1	1 do. buck,	¼ do.		4¼
				33¼

or 4 lbs. 12¼ oz. to the fleece on the average.

The 3 year old ½ Dishley gave 18¾ of wool in three years. Mr. Roach's communication is a valuable article, and fixes the value of the South Down sheep.

Yours, CH'S. VAUGHAN.

[From the Cultivator.]

THE GOOSEBERRY is among our choicest garden fruits, and is one of the earliest species which is fit for the table. But in many locations it is subject to mildew, which not only blights the fruit, but the anticipations of the cultivator. Mildew, according to Darwin, is a plant of the fungus kind, which vegetates without light, or change of air, in the same manner as the generality of mushrooms; and penetrates with its roots the vessels or plants to which it adheres. Wyllich says it is a topical disease, only to be cured by a topical remedy. We have heard and seen somewhat ourselves of the effects of topical remedies, in which lime, salt, or sulphur, have constituted the preventive or cure of this disease, not only upon the gooseberry, but upon the grape, wheat, &c.

In the grape houses about Boston, and in our own grape house, sulphur is efficaciously employed in its dry state, dusted upon the young fruit, to prevent mildew, or to check it where it has already appeared. Here neither winds or rain occur to wash or blow it off; and one or two applications suffice for the season. It may be applied out doors in a liquid form, by first mixing the sulphur with milk, with which it incorporates—and then diluting freely with water, sprinkle it upon the leaves and fruit with a white-wash or other brush.

A weak brine, of salt, scattered about the roots of the gooseberry and grape, in May, is said to operate as a preventive. Before we were aware of it, we perceived our gooseberry crop affected with mildew, when the fruit was about the size of peas. We immediately applied a weak brine, and three days afterwards dusted the bushes with lime. The disease was checked, and the berries have continued to swell, and appear healthy. Whether the salt or lime were separately or jointly beneficial, we are unable to say; but the remedy seems to have proved effectual. In the application of either of these substances care must be taken not to apply them in excess, lest they should destroy the plant as well as its parasyte. Salt is best applied to vegetation in a liquid form, as it is then more equally distributed. Lord Manners applied it with great success, in the proportion of one ounce of salt to a gallon of water. Two ounces to a gallon proved hurtful to vegetation, but the second year the herbage where it was applied was abundant. All the land on the coast is treated with sea water in China and Hindostan. The utility of salt in preventing or destroying mildew has been announced by the Rev. E. Cartwright, of London, as a discovery of great importance to agriculture. He declares it to be an absolute remedy for the mildew in wheat. His directions are: take "salt one part, water eight; with this mixture let the diseased grain be sprinkled; in three or four days the mildew will vanish, leaving only a discoloration on the straw where it had dried off. Two hogsheads of the mixture will suffice for an acre. The best mode of applying it is with a white-wash brush, having a tin collar, made water tight, to prevent the mixture dripping down the operator's arm, and running to waste. The operator having a pail of the mixture in one hand, with the other dips the brush into it, and makes his regular casts as when sowing broadcast; in this way he will readily go over ten acres a day."

T. A. Stoughtenburgh, Esq., of Johnstown, has an east and a west high tight fence to his garden. His gooseberries on the east fence, he informs us, which do not get the morning sun, have been uniformly free from mildew; while those on the west fence, the soil at both being similar, are covered and spoilt by mildew. This has happened for years. In the compact part of Albany, in the small enclosures, excluded by buildings from the morning sun, the gooseberry is seldom affected with mildew.

THE CURRANT, like the gooseberry, should be in every farmer's garden. The fruit of the red and white varieties is nutritive and pleasant, and affords in

many ways nice dishes for the table. Like the gooseberry it is propagated by cuttings, and requires no great space or labor to make it profitable in the family, and for the market.

Propagation.—Take thrifty, well ripened shoots of the preceding season's growth, and cut them twelve to eighteen inches in length, and if it is desired to make them trees, or to grow them on a single stem, gouge out all the eyes with a sharp knife, except three or four upon the upper extremity, which are destined to form the branches. Cut the lower end square at a bud; it will sooner granulate, and throw out roots; and when planted insert two thirds of the cutting in well dug ground. The cuttings are best when taken off in autumn, soon after the leaves fall. They may be put out then, or, what is better, kept till spring, in a cellar, or buried in the ground. Thus every man may procure cuttings in autumn or winter to be planted in spring. They may be planted where they are to stand, or in a nursery bed, to be removed after one or two years. They may be planted in rows ten feet apart, and four feet in the rows.

The culture consists in digging the ground about the bushes in the spring, keeping down weeds, thinning the wood, and cutting in the long shoots.

The fruit may be used for culinary purposes while green, and in its ripe state is converted into wine, jelly, and is used extensively, in various ways, for the table, with other food, in which forms it is gently laxative, emollient, and sometimes anodyne. The jelly is grateful and cooling in fevers, and no less so as a conserve at table; and the wine affords an excellent summer drink, especially with the addition of water. Directions for making the jelly and wine will be found annexed.

Sorts.—There are two varieties of both red and white, termed the common and Dutch kinds, the latter growing on lower bushes, and affording larger fruit than the common kind. The Champaign is another kind, distinguished principally by its pale color. Mr. K. has produced a sweet kind, not yet introduced into our culture.

"To make Currant Jelly.—Take the juice of red currants, 1 lb.; sugar, 6 oz. Boil down. Or,

Take the juice of red currants and white sugar, equal quantities; stir the mixture gently and smoothly for three hours; put it into glasses, and in three days it will concrete into a firm jelly."

For making Currant Wine numerous methods have been published. The juice of the currant consists, principally, of water, saccharine matter, and vegetable mucilage. Its conversion into wine is effected by what is termed the vinous and spirituous fermentations, which transform the saccharine matter into alcohol. If the must, or expressed juice, is deficient in saccharine matter, the fermented liquor will be weak and vapid, and run into the acetous, or vinegar, and sometimes into the putrid fermentation. Hence the practice of adding sugar to the must, to give it body, &c. The more violent the spirituous fermentation, the more the strength of the liquor will be dissipated; and therefore the process should progress as slowly as possible, and under a temperature not exceeding 70°. The vinous and spirituous fermentations not only convert the sugar into spirits, but they separate the mucilage, or yeast, from the liquor, in a great measure, which latter then becomes clear and transparent. If the fermentation, in wine or cider, is checked, by natural or artificial means, before the saccharine matter is converted into spirits, the liquor remains proportionably sweet; but when the conversion is complete, the product is what is termed a dry liquor. If the mucilage is left in the cask after it has performed its office, it is apt to commingle again with the liquor, render it turbid, and induce, under a warm temperature, the acetous fermentation. Hence the practice, in some cases, of conducting the vinous fermentation in open vessels, and of *then* separating it from the scum and lees; and in other cases, of racking it off, before the action of summer heats upon it. We shall give directions for making wine in both these modes. The first is from the American Philosophical Transactions, and the latter from our friend Judge Patterson, of Columbia, who successfully adopted it for many years. For ourselves, we prefer the latter mode, though we think the brandy superfluous, where 80 lbs. sugar are employed in the fabrication of a barrel.

First mode.—Gather the currants when they are fully ripe, and dry; break them in a tub or vat; then press and measure the juice, to each gallon of which add two gallons of water, and to each gallon of the mixture put 2 1-2 lbs. sugar; agitate the whole till the sugar is dissolved, when it may be barrelled. The *juice* should not be left to stand during the night, as the fermentation ought not to take place till all the ingredients are compounded. Lay the bung lightly on the hole, to prevent flies, &c., creeping in, and in three weeks bung up, leaving only the vent-hole till it has fully done working, which will be about the latter end of October. Rack into a clean cask the spring following. For a barrel of 28 gallons will be required,

8 gallons currant juice,
16 gallons water,
4 gallons sugar, or 60 lbs.

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Second mode,—in which the vinous fermentation is managed in an open vessel. Pick and press the currants as before, and add two gallons of water to one of juice, and 80 lbs. of sugar to a barrel of 32 gallons. Stir well, and cover the must, in an open vessel, with a linen cloth; place it where the temperature is from 60° to 70°, and next day skim off the impurities which rise to the surface, and stir again the liquor. Repeat the operation as long as the scum rises. Then barrel, rejecting the lees, adding 2 1-2 gallons good brandy, and bung close. No racking is required.

In the last mode the vinous fermentation is completed before barrelling. The spirituous soon follows, if the temperature remains as high as 60°, and abates in 6 to 12 days.

If the wine becomes foul or ropy, take half an ounce of chalk in powder, half an ounce burnt alum, the white of an egg, and a pint of spring water; beat the whole in a mortar, pour it into the cask, and roll it ten minutes; and as soon as the wine becomes fine, rack it off.

Remarks.—There is too much apathy among our farmers with respect to fruit. Strange as it may seem, it is no less strange than true, that while fruit affords the greatest profit of any branch of common husbandry, besides the pleasure of enjoying in abundance, as every farmer ought to do, it is a thing almost wholly neglected by common farmers as altogether beneath their notice. Even those who do not entirely neglect it, seem to think they do well if they have a few apple trees, which, without pruning, or any other attention, bear poor apples. Probably more than one half of our farmers never saw a handful of gooseberries in their lives. We think if some of them should visit some garden where they are in plenty, and in perfection, and after regaling with them pretty freely, get a treat of good currant wine, we should soon see them cultivating currants and gooseberries.

NEW-YORK AMERICAN.

AUGUST 22—28, 1835.

EUROPEAN INTELLIGENCE.

Later from Europe.—By the packet *Geo. Washington*, Capt. Holdredge, from Liverpool, we have our London papers to the 23d ult. inclusive—and annex the most important extracts.

Among these, that which is least expected, is a statement that the successor of Francis of Austria does not mean to follow in the footsteps of his predecessor—as a member of the Holy Alliance—but to withdraw therefrom. The following is a summary thereof:

Private intelligence, received from Vienna, confirms a report previously spread abroad, to the effect that the Emperor Ferdinand was about to secede from the Holy Alliance. Ferdinand has signified his determination neither to be personally present, nor to be represented, at the great review of the northern powers at Kalisch. In vain have couriers been dispatched to him from Berlin and St. Petersburgh, with the most pressing invitations; in vain has Russia pleaded the policy of displaying the power of the imperial and royal confederates, in order to overawe the more liberal governments of western Europe; in vain has Prussia rung the glories of his august father in his ears, and even included Switzerland in the list of the invited States.—The Emperor excuses himself on the plea of a necessity of attending to the internal affairs of Austria; and he refuses to send the complement of troops, alleging that they cannot be spared without endangering the security of the empire. The King of Prussia has done all in his power to obviate these objections, by offering to reduce the thirty thousand troops, first demanded, to six thousand cavalry, and to change the place of consultation from Kalisch to Toplitz, should Ferdinand prefer the latter as the more convenient place for holding the meditated Congress of Sovereigns. But all will not do; and the other great Powers are now sensible that their policy will not find a champion in the Monarch of Austria.

In the House of Commons, on the 21st July, Sir Robert Peel made a very able speech, on a motion made by him, to divide the Irish Church bill. The object of the motion, was to obtain the seperate action of the House on the two main features of the bill—that making arrangements respecting tithes, and that contemplating an alienation of the surplus of the Irish Church property to purposes other than ecclesiastical. The Hon. Baronet is said to have surpassed, in this speech, any of his former efforts. The motion was resisted by ministers—the debate had been adjourned to a third day.

In the House of Commons Mr. *F. Buxton* moved for a Committee of inquiry into the treatment of the *aborigines of the British settlemnts.* These were stated by Mr. B. to number *five millions!* At the Indian Islands and the Cape there were more than one millions of the aborigines. In Australasia, there were from two to three millions, and in New Zealand and other South Sea Islands, not to speak of Van Diemen's land, there were large numbers. These aborigines, from the Hurons of Lower Canada, to the Caffres of the Cape, Mr. B. said, had been treated with desolating severity, by the British occupants: the motion prevailed.

Mr. Ewart obtained a committee "to inquire into the best means of extending a knowledge of the arts, and of the principles of design, among the people, especially among the manufacturing population,—and also to inquire into the Constitution of the Royal Academy, and the effects produced by it." It was admitted on all sides that a knowledge of art was both refining and profitable. Among others,

Dr. Bowring gave his most cordial support to the motion, on the ground that the cultivation of the arts of design had been productive of the most beneficial results in France. In that country art was popular, in England it was aristocratical. In point of fact the French had become *artistical* from habit, and he believed that if this committee were appointed and followed up by practical results, the people of England would soon acquire mechanical aptitude for the fine arts. The works of art were open to all the population of France, and had created in that country what he would call an atmosphere of art. He expected that a similar result would take place in England if schools of design were opened in our large manufacturing towns, as they were in Lyons and other large manufacturing towns of France, for the instruction of the children of our poorer artisans.

The *Morning Chronicle* asserts that the Duke of Cumberland is the person of the "highest rank," alluded to by Mr. Hume in the House of Commons last night, as being, if Mr. Humes information was correct, *liable to impeachment for high crimes and misdemeanors against the State.* The Duke is Grand Master of the Orangemen; and the *Chronicle* states that "it was a prevalent rumor in the House that several original 'warrants for lodges' in the various regiments, signed by the Royal Grand Master, have been produced in Committee."

If it shall appear that Orange Clubs really exist to a great extent in the army, it will be an additional reason for disbanding a large portion of it, and remoddelling the remainder. It is not consistent with public safety that the Army should continue in its present state. That it is fearfully demoralized, the records of our Police offices prove; but if it is also under a secret party and political organization, there can be no question as to the method of dealing with it which Parliament should adopt.

Until the evidence is published, we shall abstain from making more than one additional remark. If the existence of Military Orange Clubs is proved, Lord Hill, as Commander-in-Chief, must be called to account. If he is cognizant of the formation of such clubs, and has not brought the offenders to trial, his breach of duty will have been extremely gross. If he is not cognizant of them, what are we to think of his vigilance, or of the propriety of continuing him in the command of the Army in these times?

London, July 22.—It appears by the private letters from Amsterdam, that all fears of a renewal of the recent disturbances there had ceased, and that it was generally current that the obnoxious tax, as well as its arrears, will be abandoned by Government. The large standing army kept up in Holland since the insurrection in Belgium has somewhat increased the burthens of the Dutch people, and may be considered as the actual cause of the recent violent proceedings, although from his proximity to the "*brave Belges,*" we do not exactly see how his Majesty the King of Holland could have done otherwise than keep up this force, or leave his frontiers exposed to the predatory incursions of his exceedingly heroic neighbors, who, however they may dislike steel and bullets, have not the slightest antipathy to silver spoons, or, as George Robbins would say, to "jewels and other effects," if the same can be obtained without the aid of "villainous gunpowder."

The Duke Maximilian of Leuchtenburgh, arrived on the 5th at Copenhagen, and was to proceed thence to Stromstadt, where his sister the Princess Royal of Sweden and her husband were to meet him.

In France the Peers are still trying the Lyons insurgents—and the French troops at Algiers were harrassed, and had suffered serious loss, by the attacks of the Arabs.

M. de Rigny, it is said, will proceed to Naples as French Ambassador.

Prince Leopold of Sicily, left Paris for Switzerland on the 18th. It was rumored in consequence that his proposed match with the Princess Mary of Orleans was put off.

The *Moniteur* publishes a statement of the receipts of the indirect contributions in the first six months of the current year, amounting to 288,983,000 francs, and presenting an increase of 12,134,000 francs, as compared with the first half year of 1834.

The *Moniteur* publishes a royal ordonnance, appointing Marshal Clausel Governor-General of the French African possessions instead of Gen. d'Erlon. The same official print announces that Louis Phillippe has granted 10,000 francs out of his ctvil list towards relieving the calamities which the cholera has inflicted upon Toulon. The cases, since the invasion of the disease, amount to 757, and the deaths to 575. At the same date there were 56 cases at Marseilles, of which 11 had proved fatal. The cholera is stated to have broken out also at Montpelier.

London, 23d July.—The Paris papers of Tuesday, received by express, communicate some particulars relative to the defeat sustained by General Trezel at the hands of Abdel Kader, the Arab Chief near Mecta, on the coast of Africa. This serious affair is modified in these journals by the name of a check, although it is admitted that 500 men had fallen, that the fugitives, in their retreat had not time to bring off all their guns and baggage, nor even their wounded; that it was with the utmost difficulty that the infantry were embarked, and that General Trezel with the remains of the cavalry found his way back to Oran. The forces under Abdel Kader are represented as having been well armed, and amounting in number to 15,000; the strength of General Trezel's brigade having been greatly inferior. This misfortune appears to have taken place on the 27th of June, a preliminary engagement having occurred on the 26th, in which the French lost 92 men, including 9 officers, in killed and wounded. It was evidently in the knowledge of this defeat that Marshal Clausel received sudden orders to embark for Algiers, in order to resume the Governorship of the colony.—The foreign legion intended for the service of Her Catholic Majesty appears to have suffered severely in this affair, so that it may be doubted whether what remains of it can be spared until reinforcements are sent out to strengthen the army of occupation.

The affairs of the Queen of Spain look somewhat better. The Queen issued a decree, on the 4th, by which the order of Jesuits is suppressed, and their property ordered to be sold. This is described as being a very wise and popular act. The Jesuits are not favorites with the Spanish populace, though the Mendicant Friars are beloved.

Literary Property in Germany.—The Diet of the German Confederation adopted, on the 2d of April, last year, the following resolution, conformably to article 18 of the Act of the Confederation: "The Governments have agreed that literary piracy is to be prohibited in all the States of the Confederation, and literary property to be regulated and protected on uniform principles." This resolution is announced by an order of the Ministry of the 12th inst., and it is further stated, that the measures adopted by the respective Governments to enforce their protection "will be made public, after having been notified to the Diet."—[German paper.]

For several years the amateurs in pigeons in Antwerp, have taxed their skill to send a certain number of pigeons to Paris. The first which arrived there gained great rewards for their owners. A similar experiment has been recently made in Paris. One hundred and eighty travelling pigeons were let loose on the morning of June 29th, at the Exchange, at half past 7, for the city of Antwerp, a distance of 90 leagues. One of them, the Great Napoleon, the dean of pigeons, the oldest aerial traveller, was first let loose—he was the bearer of the order of ascension. The other pigeons then took their flight. They had all affixed to one of their wings, the latest telegraphic news in the Exchange—"Zumalcarreguy died June 25." After having soared over the Exchange for about five minutes, they took their course toward the north. A great crowd of people were collected to witness their departure.

SUMMARY.

The Dutch frigate De Maas, Captain Arriem, of 44 guns, and 340 men, 17 days from Curacoa, having on board his R. H. Prince Henry, son of his R. H. the Prince of Orange, and the Dutch brig of war Sneeneid, Captain Ferguson, of 14 guns, and 74 men, arrived yesterday afternoon at the Quarantine ground. They each fired a salute, which was returned by Fort Hamilton.

The annual Commencement of Yale College was celebrated on Monday last.

Seventy-three youths were graduated with the degree of A.B.

From *sixty-five* to *seventy* have entered for the Freshman class of next year, and twelve for the Sophomore.

The honorary degree of Doctor of Medicine, on the recommendation of the Medical Society, was conferred on William Hyde, Nathan Shelton, Lyman Catlin, and Charles Eldridge.

Fall of a Public Store.—The floors of the new public store, at Staten Island, fell in on Friday night with a great crash. The architecture of the center was supported by wooden timbers, standing perpendicularly, and resting at the base upon stone piers, which went down to solid rock. The store has been filling up recently for the first time, and had in it four thousand boxes of sugar, a large quantity of cotton, and various other goods, presumed to contain yellow fever and other pestiferous diseases, to so virulent a degree, that nothing but a large fee to the quarantine officers, could purify them. The goods are now tumbled in one grand *mele* into the cellar, where all the seeds of disease must have the very best opportunity to ferment and send forth deadly miasmata. Yet we have no doubt that such is the devotion of the officers there, to the public good, that for a very moderate compensation, they will venture into the center of death's arcana, where they would by no means permit the citizens generally, to hazard their lives.—[Journ. of Com.]

A singular accident occurred to a steamboat on the Mississippi, on the 12th July. While running close to the shore to avoid the current, a large cotton tree suddenly fell across the boat with a tremendous crash, breaking through the boiler deck to the lower, on which a dozen men were sleeping, all of whom had but time to leap out of danger before the huge trunk sunk deep into the deck, nearly severing one poor fellow in two, crushing the head of another, and slightly wounding one or two others. After the alarm caused by this occurrence had subsided, the tree was cut away and the boat proceeded on her voyage. The tree was ninety feet long and four feet in diameter.

Singular Explosion.—At Boston, on Saturday

the schooner Sarah, lying alongside Central wharf, and loading for Hartford, suddenly blew up, with an explosion that shook the surrounding buildings, and broke all the glass panes in the neighborhood. Happily, no lives were lost. Such, however, was the force of the explosion, that a cask of copper, as we are informed by an eye witness, was thrown on the roof of one of the four story stores on the wharf. The vessel sank immediately.

The extraordinary part of the affair is, that there was no gunpowder on board the vessel—the chief cargo was lime and saltpetre. We are at a loss to account for such an accident under these circumstances. A son of John Tyler, Esq. was injured.

MR. LAUREAT AND SON'S ASCENSION.-BALLOON.—The ascension of balloons has become so common in this city, that they have ceased to attract any considerable crowd. Without much public notice, and without it being generally known in the city, Mr. L. A. Laureat made one of the most beautiful ascensions we have ever witnessed. The atmosphere was clear, wind light at S. W. A few minutes before six, P. M., yesterday, the Aeronaut stepped into his car, accompanied by his son, a lad about twelve years of age, and rose gradually, but beautifully, almost perpendicularly, over Castle Garden, where he continued, apparently, for a quarter of an hour and almost stationary, waving his flags; he soon took a current of air which took him gently over the city in an easterly direction, and remained in full view of the citizens for nearly an hour, when the balloon was seen descending over Long Island, in the direction of Newtown. Of all the beautiful spectacles of the kind, we think we have never seen one more pleasing than that we have just described. There were comparatively few persons on the Battery, or in the Garden.

10 o'clock.—Mr. Laureat has returned with his Son: he landed in perfect safety alongside Prince's Garden, at Flushing, twelve miles from this city—and having been one and a half hour in the air.—[Daily Adv.]

The London Literary Gazette, in noticing Fennimore Cooper's last abortion, says that it sent *The Monikins*, with a considerable fee, to one of the monkeys in the Zoological Gardens, in order to have it reviewed in an authentic manner; but the volumes were returned, accompanied by the following laconic note:—"*D—d dull nonsense. Yours faithfully*, JACOPO!"

STEAMBOAT SIAM SUNK.—We are informed by the St. Louis Daily Herald, that the Steamboat Siam, on her passage up the Mississippi from New Orleans, sunk nearly opposite Red river. "The cause of the accident," says the Herald, "was the breaking of her shaft, whereby, in some way, one of her paddles was driven through her bottom, so that she sunk immediately. Most of the cargo was saved, and no lives were lost.

"The Siam was soon raised again, and towed back to New Orleans."—[Cincinnati Whig of 19th August.]

FEMININE AMUSEMENTS.—The New Orleans papers give notice that a lady has established a shooting gallery on the opposite side of the river *for amateurs of both sexes*. The hostess proposes to furnish pistols and powder, but gentlemen are expected to bring their own fowling pieces, and ladies their targets! We hope the lady may find "a good run of custom" in this novel and genle establishment of her's; but it strikes us that she ought to provide accommodations for leap frog, and now and then a boxing match between these male and female "amateurs."—[Cour. & Enq.

PRINTING OFFICE DESTROYED BY FIRE.—The printing office of the "Delaware Gazette and Watchman," at Wilmington, was burnt down on Sunday afternoon last.

NEW ORLEANS, Aug. 10.

The excessive rains we understand have so much injured the cotton crops of West Florida, that the planters have abandoned the Cotton fields; the corn crops are abundant.

Sugar Crops.—We regret to state, from good authority that the sugar crop of this State cannot yield more than one half as much as the last season. The prospect in Attakapas it is stated is better than on the coast; some planters on the river cannot turn out any thing except corn, of which most abundant crops have been made.

New Flour.—Flour from new wheat was received in market yesterday by the steamboat Rob Roy, from the Ohio, and found immediate sale at $7 per barrel.

We are happy to announce the arrival in this city of Col. Stephen F. Austin, of Texas—he came passenger in the brig Wanderer, eleven days from Vera Cruz.

TREASURY DEPARTMENT,
22d August, 1835.

This Department acknowledges the receipt of an anonymous letter, without date, enclosing the sum of three hundred and forty dollars, which the writer states is "supposed to be due the United States by error in the settlement of an account."

ROYAL REWARD.—By the annexed documents, addressed to this office, and which we translate, it will be seen, that the King of the French, offers *one hundred thousand francs*, about *twenty thousand dollars*, as an inducement to seek, and restore to their country, the officers and crew of the French vessel of war *La Lilloise*, employed on a voyage of discovery, on the coasts of Iceland and Greenland.

Our ships, we believe, have little, or no, communication with those shores, and therefore it is not probable, that, through American navigation, the lost will be found, if they ever should be found.—Nevertheless, we give publicity to the documents in question:—

[Translation.]

PARIS, June 18, 1835.

Cabinet of the Minister of the Interior.—Bureau of special attributions.

Mr. EDITOR:—Permit me to ask of your indulgence, the publication at an early day, of the annexed Report, addressed by Admiral *Duperré*, Minister of Marine, to H. M. the King of the French, relative to the Brig *Lilloise*.

You will, I hope, appreciate the importance we attach to giving publicity to this document, and comply with the request here made.

Accept my thanks for so doing, and be pleased, on occasion, to dispose without reserve of my services. I have the honor to be, &c., &c.

CHAS. [illegible], *Chief of Bureau.*

To the Editor in chief of the N. Y. American.

PARIS, June 17, 1835.

[Report to the King.]

SIRE:—The King is apprised that since August 1833, no news of any sort has been received of the *Lilloise*, which under the command of *M. de Blosseville*, lieutenant commanding, (*lieutenant de Vaisseau*) was employed on a mission to the coasts of Iceland and Greenland.

In order to add to the means hitherto adopted to obtain intelligence of this vessel and her crew, your Majesty having expressed the purpose of interesting the mariners of France, and of foreign nations that frequent those regions, I have the honor to propose for your decision—

1st. That a sum of *One hundred thousand francs* be allowed to any French or foreign mariners, who shall bring back to their country, the whole, or any part, of the officers and crew of the *Lilloise*.

2. That a reward proportioned to the importance of the service rendered, should be granted to those who shall communicate the first certain intelligence concerning them, or procure the restitution to France, of any of the papers, or effects, belonging to the expedition.

I am, with the most profound respect, Sire, your Majesty's very humble, obedient, and faithful servant,

Admiral Peer of France, Minister of Marine and the Colonies. *Duperré.*

Approved, LOUIS PHILLIPPE.

By the King,
Duperré,
Admiral, &c. &c.

MISCELLANY.

THE LONDON QUARTERLY REVIEW, No. CVII, for July, 1835.—This number reached us by the Europe, and has occupied some agreeable hours. It is a very good number.

We add some extracts from the capital paper on Gastronomy and *Gastronomers*.

'APHORISM.—*Of all the qualities of a cook, the most indispensable is punctuality.*

'I shall support this grave maxim by the details of an observation made in a party of which I was one—*quorum pars magna fui*—and where the pleasure of observing saved me from the extremes of wretchedness.

'I was one day invited to dine with a high public functionary;* and at the appointed moment, half-past five, every body had arrived, for it was known that he liked punctuality, and sometimes scolded the dilatory. I was struck on my arrival by the air of consternation that reigned in the assembly; they spoke aside, they looked into the court-yard; some faces announced stupefaction: something extraordinary had certainly come to pass. I approached one of the party whom I judged most capable of satisfying my curiosity, and inquired what had happened. "Alas!" replied he, with an accent of the deepest sorrow, "Monseigneur has been sent for to the Council of State; he has just set out, and who knows when he will return!"—"Is that all?" I answered with an air of indifference which was alien from my heart; "that is a matter of a quarter of an hour at most; some information which they require; it is known that there is an official dinner here to-day—they can have no motive for making us fast." I spoke thus, but at the bottom of my soul I was not without inquietude, and I would fain have been somewhere else. The first hour passed pretty well; the guests sat down by those with whom they had interests in common, exhausted the topics of the day, and amused themselves in conjecturing the cause which had carried off our dear Amphitryon to the Tuileries. By the second hour, some symptoms of impatience began to be observable; we looked at one another with distrust; and the first to murmur were three or four of the party, who, not having found room to sit down, were by no means in a convenient position for waiting. At the third hour, the discontent became general, and every body complained. "When *will* he come back?" said one. "What can he be thinking of?" said another. "It is enough to give one one's death," said a third. By the fourth hour, all the symptoms were aggravated; and I was not listened to when I ventured to say that he whose absence rendered us so miserable was beyond a doubt the most miserable of all. Attention was distracted for a moment by an apparition. One of the party, better acquainted with the house than the others, penetrated to the kitchen; he returned quite overcome; his face announced the end of the world; and he exclaimed in a voice scarcely articulate, and in that muffled tone which expresses at the same time a fear of making a noise and the desire of being heard: "Monseigneur set out without giving orders; and, however long his absence, dinner will not be served till his return." He spoke, and the alarm occasioned by his speech will not be surpassed by the effect of the trumpet on the day of judgment. Amongst all these martyrs, the most wretched was the good D'Aigrefeuille,† who is known to all Paris; his body was all over suffering, and the agony of Laocoon was in his face. Pale, distracted, seeing nothing, he sat crouched upon an easy chair, crossed his little hands upon his large belly, and closed his eyes, not to sleep, but to wait the approach of death. Death, however, came not. Towards ten, a carriage was heard rolling into the court; the whole party sprang spontaneously to their legs.—Hilarity succeeded to sadness; and in five minutes we were at table, But, alas! the hour of appetite was past! All had the air of being surprised at beginning dinner at so late an hour; the jaws had not that isochronous (*isochrone*) movement which announces a regular work; and I know that many guests were seriously inconvenienced by the delay.'

The meditation entitled *Gourmandise* is replete with instructive remark; but we must confine our-

* No doubt Cambacères.

† The friend and principal aid-de-camp of Cambacères.

selves to that part of it which relates to the ladies, who, since Lord Byron's† silly prejudices upon the subject were made public, think it prettiest and most becoming to profess a total indifference as to what they eat. Let them hear our professor on this subject—

'*Gourmandise* is by no means unbecoming in women; it agrees with the delicacy of their organs, and serves to compensate them for some pleasures from which they are obliged to abstain, and for some evils to which nature appears to have condemned them. Nothing is more pleasant than to see a pretty *gourmande* under arms: her napkin is nicely adjusted; one of her hands is rested on the table; the other conveys to her mouth little morsels elegantly carved, or the wing of a partridge which it is necessary to pick; her eyes are sparkling, her lips glossy, her conversation agreeable, all her movements gracious; she is not devoid of that spice of *coquetterie* which women infuse into every thing. With so many advantages she is irresistible; and Cato the Censor himself would yield to the influence.

'The penchant of the fair sex for *gourmandise* has in it somewhat of the nature of instinct, for *gourmandise* is favorable to beauty. A train of exact and rigid observations have demonstrated that a succulent, delicate, and careful regimen repels to a distance, and for a length of time, the external appearances of old age. It gives more brilliancy to the eyes, more freshness to the skin, more support to the muscles; and as it is certain in physiology, that it is the depression of the muscles which causes wrinkles, those formidable enemies of beauty, it is equally true to say that, *cæteris paribus*, those who understand eating are comparatively ten years younger than those who are strangers to this science. The painters and sculptors are deeply penetrated with this truth, for they never represent those who practice abstinence by choice or duty, as misers or anchorites, without giving them the paleness of disease, the leanness of poverty, and the wrinkles of disquietude.

'Again, *gourmandise*, when partaken, has the most marked influence on the happiness of the conjugal state. A wedded pair endowed with this taste have once a day, at least, an agreeable cause of meeting. Music, no doubt, has powerful attractions for those who love it; but it is necessary to set about it,—it is an exertion. Moreover, one may have a cold, the music is not at hand, the instruments are out of tune, one has the blue devils, or it is a day of rest. In *gourmandise*, on the contrary, a common want sommons the pair to table; the same inclination retains them there; they naturally practise towards one another those little attentions, which show a wish to oblige; and the manner in which their meals are conducted enters materially into the happiness of life. This observation, new enough in France, had not escaped the English novelist Fielding; and he has developed it by painting in his novel of 'Pamela' the different manner in which two married couples finish their day.

'Does *gourmandise* become gluttony, voracity, intemperance? it loses its name, escapes from our jurisdiction, and falls within that of the moralist, who will deal with it by its precepts, or of the physician, who will cure it by his remedies. *Gourmandise*, characterized as in this article, has a name in French alone; it can be designated neither by the Latin *gula*, nor the English *gluttony*, nor the German *lusterabeit*; we, therefore, recommend to those who may be tempted to translate this instructive book, to preserve the substantive and simply change the article; it is what all nations have done for *coquetterie*, and every thing relating to it.

Considering the high privileges attached to the character of a *gourmand*, we are not surprised at finding that it is not to be assumed at will. The next Meditation accordingly is headed *N'est pas Gourmand qui veut*, and begins as follows:—

'There are individuals to whom nature has denied a refinement of organs, or a continuity of attention, without which the most succulent dishes pass unobserved. Physiology has already recognised the first of these varieties, by showing us the tongue of these unfortunates, badly provided with nerves for inhaling and appreciating flavors.—These excite in them but an obtuse sentiment; such persons are, with regard to objects of taste, what the blind are with regard to light. The second is composed of *distraits*, chatter-boxes, persons engaged in business, the ambitious, and others, who seek to occupy themselves with two things at once, and eat only to be filled. Such, for instance, was Napoleon; he was irregular in his meals, and ate fast and ill: but there again was to be traced that absolute will which he carried into every thing he did. The moment appetite was felt, it was necessary that it should be satisfied, and his establishment was so arranged, that in all places and at all hours, chickens, cutlets, and coffee, might be forthcoming at a word.'

The habit of eating fast and carelessly is supposed to have paralysed Napoleon on two of the most critical occasions of his life—the battles of Borodino and Leipsic, which he might have converted into decisive and influential victories by pushing his advantages as he was wont. On each of these occasions he is known to have been suffering from indigestion. On the third day of Dresden, too, the German novelest Hoffman, who was present in the town, asserts that the emperor would have done much more than he did, but for the effects of a shoulder of mutton stuffed with onions—a dish only to be paralleled by the pork chops which Messrs. Thurtell & Co. regaled on after completing the murder of their friend Mr. Weare.

The gifted beings predestined to *gourmandise* are thus described:—

'They have broad faces, sparkling eyes, small foreheads, short noses, full lips, and round chins.—The females are plump, rather pretty than handsome, with a tendency to *embonpoint*. It is under this exterior that the pleasantest guests are to be found; they accept all that is offered, eat slowly, and taste with reflection. They never hurry away from the places where they have been well treated; and you are sure of them for the evening, because they know all the games and pastimes which form the ordinary accessaries of a gastronomic meeting.

'Those, on the contrary, to whom nature has refused an aptitude for the enjoyment of taste, have long faces, long noses, and large eyes: whatever their height, they have always in their *tournure* a character of elongation. They have black and straight hair, and are above all deficient in *embonpoint; it is they who invented trowsers.* The women whom nature has afflicted with the same misfortune are angular, get tired at table, and live on tea and scandal.'

Out of the many modes proposed of testing this theory, we shall confine ourselves to one—the judicious employment of *eprouvettes*:—

'We understand, by *eprouvettes*, dishes of acknowledged flavor, of such undoubted excellence, that their bare appearance ought to excite in a human being, properly organized, all the faculties of taste; so that all those in whom, in such cases, we perceive neither the flush of desire nor the radiance of ecstasy, may be justly noted as unworthy of the honors of the sitting and the pleasures attached to it.'

A distinguished gastronomer, refining on this invention, proposes *eprouvettes* by negation. When, for example, a dish of high merit is suddenly destroyed by accident, or any other sudden disappointment occurs, you are to note the expression of your guests' faces, and thus form your estimate of their gastric sensibilities. We will illustrate this matter by an anecdote which our author has forgotten to note.

Cardinal Fesch, a name of honor in the annals of gastronomy, had invited a large party of clerical magnates to dinner. By a fortunate coincidence, two turbots of singular beauty arrived as presents to his Eminence on the very morning of the feast. To serve both would appear ridiculous, but the Cardinal was, notwithstanding, most anxious to have the credit of both. He imparted his embarrassment to his *chef*—'Be of good faith, your Eminence:' was the reply, 'both shall appear: both shall enjoy the reception which is their due.' The dinner was served: one of the turbots relieved the soup. Exclamations unanimous, enthusiastic, religious, gastronomical—it was the moment of the *eprouvette positive*. The maître d'hôtel advances: two attendants raise the monster and carry him off to cut him up; but one of them loses his equilibrium: the attendants and the turbot roll together on the floor. At this sad sight, the assembled Cardinals became pale as death, and a solemn silence reigned in the *conclave*—it was the moment of the *eprouvette negative*—but the maître d'hôtel suddenly turns to the attendant—'Bring another turbot,' said he, with the most perfect coolness. The other appeared, and the *eprouvette positive* was gloriously renewed.

† It is a strange coincidence that Goethe, in *Wilhelm Meister*, expresses a similar dilike to seeing women eat.

[*From "Ship and Shore."*]

We did not reach Catania till a late hour of the morning. Here we took thirteen mules—five as substitutes for our own legs—five as sumpters—and three for the accommodation of the guide and muleteers. Thus equipped, with provisions for three days, and with great coats and blankets sufficient to protect us in a region of ice, we started a little before mid-day for the top of Etna. We were determined to see the next sun rise from the summit of that mount.

Our road lay for fifteen miles, among the rugged reefs of lava, disgorged in the last eruption. Every thing around had the appearance of a vast lake, tumbled in a storm, and suddenly changed to solid blackness. The sides of the mountain, as we approached it, presented features of a still bolder fierceness. The huge rock, the toppling crag, the protruding bluff, stood forth in frightful wildness from the channels and chasms which past torrents of fire had left behind. The summit, with its cloud of smoke and shaking cone, crowned the whole with a dark befitting terror.

At sunset, having reached the verge of the woody zone, we alighted for rest and refreshment. We here changed our summer apparel for that of winter; the great coats which had been put on our sumpters by our trusty guide—and which we should wholly have neglected—were now in eager requisition. Thus protected, and with spirits and strength renovated by the repast, we mounted again and renewed the ascent. Daylight had gone, but the sky was clear, and the light of the stars was sufficient for our practised guide. Our mules were sure footed, and we had only to relinquish ourselves to their superior sagacity.

At a little before midnight, while approaching the foot of the great cone, where we were to part with our faithful animals, and where indeed we were to wait for the break of day, things began to wear a fearful change. Frequent clouds swept past us; but there was one at some distance which seemed more stationary—gathering in bulk and blackness. Our guide anxiously watched it, as it collected its strength and threw out its snagged flukes, and quickly leading the way up a steep ledge, called vehemently upon us to follow. We had only gained the ridge when the tempest came. It appeared to me to be the last position one should seek under the tornado which now swept us, for we were obliged instantly to dismount and hold on to the sharp points of the rock. Our mules placed themselves instinctively in a posture presenting the least resistance to the rushing element. It was soon apparent why our guide had taken refuge on this unsheltered steep; for, as the cloud struck the side of the mountain, its enfolded lake descended in deluge and thunder. Rocks and large masses of ice, disengaged by its violence, rolled down on each side of us and over the very track on which we were moving but a few moments before. Though separated from each other but a few feet, yet no one could make himself heard; the torrents around and the thunder above overpowered even the loudly vociferated admonitions of our guide. There was at one moment a darkness that might be felt, and then at another the lightning, flashing down through the rifts of the cloud, would make the slightest pebble visible in its searching light. An hour of these dread alternations, while torrents and rocks were rolling on each side of us—and the storm went past. We were drenched to the skin, while our outer garments began to be stiff with the ice, yet with a shivering accent, we could speak to each other once more. It was the language of one spirit rallying and animating another. Captain Read with characteristic energy, was the first to mount.

Nil actum reputans, si quid superesset agendum.

The reader, without undergoing our fatigue, or being wearied with a detail of incident, will now conceive us about two thousand feet above the point where we had encountered the storm—in a substantial shelter at the foot of the great cone—around a grate of coal, which we had brought with us from Catania—warming our fingers—snapping the ice out of our coats—toasting Etna in a bumper of its own wine—and watching for the break of day. That hour comes: and now let him take his stand with us on the highest point of the cone, ten thousand feet above the level of the sea, and imagine the whole island of Sicily with its peaks and glens, its torrents and valleys, its towns and forests,

with the broken line of its bold shores stretched beneath in one vast panoramic view—the sun, wheeling up out of the distant sea—the heavens flushed with its splendor—the mountain pinnacles burning in its beam—the great cone shaking with the throes of the unresisting element within—the crater sending up its volumes of steep cloud—and the central lake of fire flashing up through the darkness, like terrific glimpses of the bottomless abyss! But the reality overpowers all description! I drop my pen, and half accuse myself of rashness in having made even this brief attempt.

We effected the descent without any serious injury, though I had myself rather a narrow escape. My mule made a misstep—the only fault of the kind he had committed during the excursion. I fell over his head, and turned many somersets; on looking back, I saw my mule standing on the verge of the slope, and disregarding every thing else, directing his anxious look to me. There was sorrow and self-accusation in that look—I forgave him. Beckoning to him, he came down, snuffed about my mangled hat, and when I remounted, pricked up his ears, and started on with the most assured tread.

The Etna fever, which hurried us blindly past all other objects on our way to the mount, having subsided we determined to defer our return to the ship, and glance at some of the features of Catania. This is a beautiful city, though built upon one vast field of lava, with the dead beneath, a volcano above, and the frightful monuments of the earthquake around. I know not why it is, but some how in this strange world, beauty, danger and death, are always in the same group. The sweetest violet I ever saw, bloomed among wreaths of snow on a sister's grave.

The amphitheatre, where the ancient Catanians held their sports, and where they may have been suddenly engulfed in a flood of fire, stands seventy feet beneath the gay promenade of the present town. This gigantic structure is built itself of lava, and for aught we can tell, may have been reared over play-houses, entombed in some eruption of a still earlier date. Thus it ever is in this world; on land, the votary of pleasure indulges his mirth over the bones of a perished race; and on the ocean, the mariner lightly hymns his song on a wave, through which have sunk thousands to re-appear no more. We present to heaven a picture of life and death, mirth and madness, over which angels might wonder and weep!

Nature often atones for the fierceness of present calamities in the beauty of remote results. The ashes that fall in the burning breath of the volcano nourish plants which are to bloom above those they have buried; and the forest, which now encircles Catania, waves more luxuriantly than the one chared beneath. The vegetable life and bloom which followed the subsiding waters of the great deluge, were not less fresh and fair, than what had been swept away. But man covers the world with his slain—leaving their flesh to the vultures, their bones to the accents of the last trump, and his own guilt to the disposal of a final Judge.

We visited, while at Catania, the museum of the prince of Biscari—the largest and most richly stored private cabinet in the world. I pass by the statues of the ancient deities, for time and disaster have been as fatal to their forms as inspiration has to their worship. I pass by the collection of shells, for none in all their vast variety, has the tone and rainbow beauty of the one through which the mermaid breathed my dying dirge. I pass by the vases which held the wines, and the lamps which lighted the festivities of the ancients; for who would gaze on the nail of the coffin, in which youth and affection have sunk from light and life? I pass by the countless minerals and gems—they shed no rays of such living light as those which beam from the eye of the bright gazelle. I pass by the million of embalmed insects,—others swarm the field and forest happy in the life which they have lost. I pass by —no I will not—the expressive statue of Cleopatra. The heart throbs beneath its beauty—the eye swims when lifted to that last look of suicidal despair.

Leaving the museum, we encountered a humble Franciscan in his simple attire—his uncovered head and sandals. He presented us with some flowers, and received in his thin pale hand our little charities. Poor pilgrim! what is this world to thee? Thou hast renounced its wealth, its pleasures, its restless spirit of enterprise: thy home is not here—is it in heaven?—art thou indeed going to that better land, where the strife and vanities of earth never come? May the privations of thy lot atone for the mistaken virtues of thy creed.

If I determine to become a monk, I will come here and join the Benedictines. They have a splendid monastery, richly endowed—luxuriant gardens—sumptuous fare—nothing to do—they live like gentlemen. If any one questions the usefulness of such a life, I can only say, let him attend to his own business. What concern is it of his, if, like a silkworm, I wind myself up in my own web? Let him not attempt to wind my house on to his bobbin.

Cicisbeoism prevails among the higher classes in Catania. It passes as a pure platonic affection—infringing no marriage obligation—no law of morality—no rule of rigid propriety—merely a chaste friendship—innocent as a new-born babe. It does, to be sure, encourage a peculiar intimacy, and may perhaps diversify the features of the younger members of the family; but what of that? No sentiment of delicacy has been publicly shocked—and no one dies before his time comes:—let the exquisite arrangement alone. Never was there a charmer of the bird with so beautiful a skin, so bright an eye, and so venomous a fang! It is the devil himself disguised as an angel of light!

Leaving Catania—the excellent hotel of the attentive Abatti—and traveling the remaining half of the day and the succeeding night, we arrived at Messina at the break of day. The leaves were wet with the dew, and the first rays of the sun were among them.

Sketch of a Kingston Boarding-house.

From Dr. Madden's twelve months' residence in the West Indies.

I have given one of my friends a little sketch of an hotel in Barbados; the following is a short one of a boarding-house in Kingston:

The stranger, on his arrival, is conducted (perhaps like myself) to a first-rate establishment in East street: his conductor draws up before a large mansion of an imposing exterior, with a multiplicity of windows, on which the late war has evidently conferred no taxes, or at least none affecting the transmission of light or the sea-breeze,—which is so essential to health and comfort that Mr. Pitt should have been ashamed for neglecting to lay a duty on its enjoyment. The stranger is ushered into a wilderness of a saloon, which runs in extent from front to rear, with the exception of a narrow gallery at either extremity, the whole breadth of the building. The saloon is destitute of windows; but there is no dearth of doors on either side and these lead to the bed-rooms. Carpets, window-curtains, and hangings are, very properly, no part of the paraphernalia of the saloon; but, in lieu of these, the stranger slides, at the risk of his neck, over a highly polished floor; and sits down, as he imagines, at the peril of his life, in a state of liquefaction, in a thorough draft, and, for the prevention of cold, calls for a glass of sangaree; and, in the course of half an hour, to obviate the heat which is fusing his yet "too solid flesh," he is advised to have recourse to the old, simple, unadulterated, "and best beverage after all"—plain water *diluted* with brandy,—and, before he goes to dinner, to give him an appetite, and dissipate the confounded languor that clogs his energies, he cannot decline a small wine glass full of bitters mixed with Madeira.

He very properly pays his respects, before he dines, to the lady of the house;—on Mohammed's principle of going to the mountain, which will not come to him, he accordingly presents himself before the figure of a stout young gentlewoman, seated in the end gallery, who scarcely moves as he approaches. The stranger is afraid she is an invalid: he asks the way to the dinner-room; the lady points with her chin to the apartment: he fears the poor young woman is a mute; he determines to ascertain the fact:—"I presume, madam, you are the lady of the house?"—The young woman again points her chin in the direction of an old emaciated brown lady, stalking through the court-yard:—"What would your gracious figure" intimate by that? asks the stranger with an inquiring glance. The young woman moves her lips, and, in due time, she deliberately articulates two words:—"My mother."

Why the deuce, thinks the stranger, could she not say so at first, instead of sitting with her hands behind her back, and pointing out her chin, to avoid the trouble of pointing with a finger?

Well, the dinner table is prepared in one of the end galleries, with all the *jalousies* thrown open to admit the breezes; the wine-bottles are dripping in the window in their cotton bags; the gentlemen are mustering in their white jackets, and the poor ladies plying their cambric handkerchiefs; while the brown waiters, like feathered Mercuries in a galloping decline, are doing violence to the laws of nature in the West Indies; and some invisible agent is accelerating their movements on the stairs, till the dinner is at length served up.

King James says, in one of his treatises, if he were to invite the devil to dinner, he would have three things for his entertainment—"a pig, a poll of ling, and a pipe of tobacco for 'digesture.'"—Were it my painful duty to entertain his satanic majesty, I would set before him three dishes, common enough in the West Indies—pigeons, prawns, and pickled salmon; and if these did not astonish his "digesture," I don't know what would.

King-fish and turtle, beef and mutton mystified in various shapes, prawns and roasted pigeons, yams and sweet potatoes, calaloo and garden-egg, and various other delicacies are tried, commended, and despatched; and believe me, sir, an alderman on a voyage of discovery, like the late Sir William Curtis, in his cruise in the Mediterranean, in quest of culinary novelties, might travel a great deal farther than Jamaica and fare infinitely worse, whether in a boarding-house or at a private table.

The attendance, however, is not equal to the fare. Once the stranger loses sight of the waiters, black or brown, he may bid adieu to the light of their greasy countenances, perhaps for hours to come. He may knock at the table till he is tired, shout till he is hoarse—(ring a bell he cannot)—he may call Ned, Frank, Cupid, or Columbus—ay, he may call niggers from the kitchen depths, but, query, will they come? till, at last after apostrophizing them as "waiters!" "boys!" "black fellows!" "you rascals, there!" he winds up with a magical noun substantive of the congregative kind—"*Somebody*, I say, there!" and, after a decent interval, the die-away tones of the drawling voice of the stout lady below stairs are heard in the interesting inquiry of—"Will *nobody* come there?" and lo and behold! at last *everybody* does come, at the rate of a brown hunt, which is about a step and a half in ten seconds.

The First Discovery of Columbus.

By the Author of "Specimens of the Early Poetry of France."

[The crew of Columbus, having lost all hope of land, and finding that what he had thought so proved but clouds, began to murmur against *this bold Italian*, and determined to give him only three days longer to fulfil his promises.—The first of these days he became convinced, by the sunset, that land was near—in the night he espied lights. Two hours after midnight, 11th of Oct., 1492, land was clearly visible. The island on which they landed was Guanahana, which they called St. Salvador.]

"The howling winds forbid us
To trust the fatal main—
Oh turn our wand'ring vessel
To harbor once again!
Why to this 'bold Italian'
Our lives, our hopes confide?
No golden land awaits us
Beyond the shoreless tide.
How long shall he deceive us
With boasting vain and loud?
And when we gaze for land,
He can show us but *a cloud!*"

The gallant leader heard,
But he listen'd undismay'd,
Tho' he saw their furious glances,
And their daggers half display'd,
No fear was in his soul,
But his heart was wrung with woe;
Shall he quail before their murmurs,
And his glorious meed forgo?
Had he braved the ocean's terrors
In darkness and in night;
And shall he furl his sails
With the promised goal in sight?
For he look'd tow'rds the horizon
And marked the setting sun;
And, by its ruddy light,
He *knew* his toil was done!

'Twas in the deepest midnight,
As they cut the yielding wave,
When not a star was shining
To guide them, or to save,
As in awful, hopeless, silence,
Their onward course they steer,
Far in the murky distance
Lo!—glimmering lights appear!

In breathless joy and wonder
They watch the op'ning sky;
And, with the morning, rises
Their rapturous certainty.
Thro' silvery vapor gleaming
Extends the welcome strand,
And trees, and rocks, and mountains,
Before their view expand.
They breast the foaming surges
And shouting leap to shore,
While ev'ry echo answers
"God! and Saint Salvador!"

[For the New-York American.]

Musings.—*By Placcus, in the Country.*

SERENADE.

"Avec toi tout est jouissance,
Et rien sans toi"—

The night is still—but not my soul—
How calm is nature's sleeping breast!—
Would that, in mine, her quiet stole,
And I, like her, were thus at rest.

The gentle moon looks mildly down,
At her sweet gaze the vapours flee;
But ah!—the clouds that round me frown,
No beam of love will chase from me—

The night-bird, from his native tree,
Pours on the air his lulling strain;
But harshly thrills his melody,
Amid the discord in my brain.

The winds, a load of sweets divine,
From out the wood's deep bosom, bear;
But ah!—the sighs that gush from mine
Breathe only of the bitter there—

Not song of bird, nor glance of moon,
Nor breath of woods, my smile inspires—
Thy voice, thy face, thy sighs, alone,
Can give the peace my soul requires—

No. 9— W.

Folger's Floating Dry Dock.—We have examined the model of this new and ingenious invention, now exhibiting under the Exchange, and see no reason to doubt that it presents a mode, both cheap and effectual, of repairing—and building too for aught we see—ships, in Dry Dock.

The principle is simply this:—a floating cradle, water tight, and of the dimensions proportioned to the vessels to be docked, is constructed, with a falling gate at one extremity; this being lowered the cradle sinks, so that the vessel may pass into it—when by windlasses the gate is closed—the water within pumped out by a steam engine, and, as it is withdrawn, the vessel is shored up, and supported along the inner sloping walls of the cradle.

Several such docks, of sizes proportioned to merchant ships and vessels of war, would cost little, compared with a permanent Dry Dock, and would have the advantage of being available for use any where—without regard to locality—where they could float. We commend the invention to the notice of the public.

Russian Commercial Speculation.—The foreign journals contain articles attributing great activity to the Russian Government in seeking to open new sources of commerce, and to improve the old. One thing remarkable is, that in most of the projected enterprises a communication with India is contemplated, as is the case in the following speculation extracted from a Hamburgh paper received yesterday:—

"It is said, that in the late journey of the Emperor Nicholas to Moscow, the plan for a junction of the Dnieper and the Duna, and for making these two rivers throughout navigable, was taken into consideration, and recognised as a practical undertaking, which, when completed, must have great influence on the half of Europe. While the Danube, being now navigated by steam-vessels, will become a more animated channel of commerce, and the routes of communication with India will be directed more and more to the east—while the intended railroad from Vienna to Galicia appears as a gigantic undertaking, there will be in future numerous ways of intercourse in that direction, and lead Asia to a higher degree of civilization.

"Russia wants nothing but such grand routes to acquire a rapid increase of prosperity and population, as it includes, by its geographical position, all the productions of the north and south. The line of the southern provinces begin to be an important branch of commerce, and will become more so when the intended channels of communication, which will be available at least six months in the year, shall be established. Among them a connexion of the north with the Wolga is spoken of, whether by means of canals or iron railroads is not determined."

Much employment for capital is presenting itself in the United States, and generally speaking it bears a good character with the monied interests of this country. Among the contracts lately entered into is a New York loan, for supplying the city with water, 200,000*l.* 5 per cent; a Maryland State loan, for canals, 400,000*l.* 6 per cent; and an Alabama State loan, for railroads, 300,000*l.* 5 per cent. The terms of the contract do not appear to be known here at present.—[English paper.]